

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report January 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**February 10, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (January 1st - January 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (February 1st - February 29th)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

No activity during the reporting period.

*Work Performed (January 1st - January 31st)*

- Continued updating the configuration diagram for controlling the backup process.
- Continued to create agendas, schedule and attend DR and backup update meetings, update or create action items based on info that came out of the meetings.
- Continued to update the document that describes the process to use the One Drive for getting backups to KeyLogic.
- Schedule a Disaster Recovery exercise.
- Tested an import with the Data pump backup file at Keylogic. Worked well. Additional testing needs to be done.

*Work Planned (February 1st - February 29th)*

- Schedule a Disaster Recovery exercise.
- Finalize the document that describes the process to use the One Drive for getting backups to KeyLogic.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (January 1st - January 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- Supported users in the reserve resources data entry and security aspect of it.
- Created an estimate for the users request to modify the logic/security for Reserve resources data entry.
- Users support for PERS results security and data entry.
- Research on the documents with the information of latest BAS system software upgrades, documents were sent to the client.
- Support on setting a correct Program Area Header id in the macro reports creation.
- Issue with Key Programs import process into non empty version was found and fixed.
- Modification Key Program Resources import process to allow the overwrite functionality on this process and moved the change to production.
- Assisted in loading allocation data needed for a macro report.

*Work Planned (February 1st - February 29th)*

- Continue enhancing BAS, as requested.

- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

### **Subtask 1.6 Acceptance Testing**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (January 1st - January 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

#### *Work Planned (February 1st - February 29th)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (January 1st - January 31st)*

None

#### *Work Planned (February 1st - February 29th)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (January 1st - January 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality

modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.

- Continued maintaining BAS change control log.

*Work Planned (February 1st - February 29th)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

**Subtask 1.9 - Database Security**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

None

*Work Planned (February 1st - February 29th)*

- Maintain BAS database security as necessary.

**Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (January 1st - January 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.

- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

*Work Planned (February 1st - February 29th)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (January 1st - January 31st)*

- Multiple PERS versions accesses modifications as well as linking versions to Fiscal years.

*Work Planned (February 1st - February 29th)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

- None

*Work Planned (February 1st - February 29th)*

- Continue efforts to develop and revise system documentation, if requested.

## **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

- Continued supporting annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, security issues, connectivity on CDW, BAS SQL Server, F5, BAS Oracle server, Nightly imports Oracle client issue.

*Work Planned (February 1st - February 29th)*

- Continue to support budget/finance related reports, as requested by client.

**Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

None

*Work Planned (February 1st - February 29th)*

- Support OCFO staff as requested.

**Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (January 1st - January 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - General:
    - Reset PIN for SecureId Token since something required them to be reset for all users.
    - Supplied list of active OCFO Lotus Notes applications to John Batzer for discussion about conversion to MS SharePoint.
  - Budget Submission (Rebecca Muse/Jackye Herzfeld)
    - Structure changes to insert new tab 12.
    - Support of detach/merge macro.
    - Other support issues.
  - CATD Database (Lorna Washington)
    - Setup a demo copy of the database for Lorna so that she could show functionality.
    - Helped with some database access issues.
  - GAO Request Tracking (Mark T. Howard)
    - Setup a demo copy of the GAO Tracking database so that Mark can demo the database functionality. Actually created two different demo copies.



- OB Main Menu – (Aaron Staniszewski)
  - Helped Aaron with getting access to Howard Rubin for this database.

*Work Planned (February 1st - February 29th)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

**Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (February 1st - February 29th)*

- Install BAS front and back end as necessary to implement system revisions.

**Task 7: Project Management/Technical Assistance**

*Client Actions/Decisions Required*

None

*Work Performed (January 1st - January 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
  - OCFO-HQ overdue patch count was reduced from 149 on 12/7/2015 to 4 on 1/28/2016.
- Provided end user desktop support.
  - Resolved Citrix problem that occurred on 1/4/2016. IMA service was stopped and preventing all users from accessing Citrix.
  - Assist JB with SMTP server address for BFS.
  - Assist Paul Amato with instructions for connecting with BAS using desktop shortcut.
  - Request DVI splitter for Jackye's computer so she can mirror her extend and mirror 2 monitors. EZTech did not have the splitter. Eric working to order.

- Complete required FOIA Awareness Training. Complete required Records Management training.
- Work with Tracy to surplus remaining computers.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 8 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Attempted to load MDT Windows 7 EPA image on one of the new Toshiba laptop computers. The image failed to load because the computer is a consumer grade computer and does not have a TPM chip for handling encryption. The only COOP machine that has this chip is Janet's old Dell.
- Turn on new server w1742BDCPK013 that hosts eHelpdesk portal. Also load and configure free version of Jira software.
- Meeting with Shelly to discuss log auditing best practices.
- Send setup instructions for Remote Workplace to Jackye for new KeyLogic users.
- Dark fiber connection still not live/active between WJC and PY.
- Investigate need for Citrix maintenance renewal. Determined that maintenance contract is required for 2016, but not 2017. This is the least cost option for upgrading the Citrix version from 6.5 to 7.6.

*Work Planned (February 1st - February 29th)*

- Work with Eric and Jackye to identify plan for standing up new COOP machines.
- Finalize plan for migrating remaining servers to Potomac Yard. Awaiting activation of dark fiber connection between WJC and PY before we can schedule the migration date.
- Attend IPv6, BigFix patching and MDT meetings.

## **Task 8: Web-Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- Comment on SLCM documentation changes needed for future releases.

*Work Performed (January 1st - January 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
  - Reviewed for internal use EPA's design and requirements documents for

Performance module.

- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared for internal use documents in support of BFS deployment outside of EPA.
  - Prepared training materials on various modules.
  - Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued on design of Allocations reports.
  - Discussions on the adding Fund (Approp and Subapprop as well) data to RefData Module in a grid form (not a treeview).
  - Continuing discussion on the way Rule Sets for Modeling should be stored in.
  - Automated the BFS to BAS load
  - Extracted budget versions from BFS and load to BAS upon request
  - Optimized BFS ETL packages for Azure environment
  - Documented ETL transformation rules
  - Configured a SQL Server database on a virtual machine to link to Azure SQL
  - Reviewed the design document and requirements for the Performance Module
  - Participated in internal meetings and working sessions for development of the Performance Module.
  - Had discussions and meetings internally and with clients.
- Data Capture:
  - Continued building database objects needed to support different Resources reporting processes.
  - Completed design and build out of a mechanism to allow long-running processes, such as the allocations calculations to complete without failing due to time-outs.
- System development and support:
  - Made several changes to Generic Data Entry grid as was implementing it in RefData Module.
  - Formulated questions that came as a result of multiple Performance module discussions.
  - Continued work on non-Tree data entry grids for Fund, Approp and SubApprop data.
  - Removed all references to Data Core from Modeling, RefData and Version Management modules in the Feature branch of BFS.
  - Modeling/Allocation Data crosswalking analysis and corresponding review on how Is Deleted is working on Modeling Data. This needs some fixes.
  - Added validation to disallow alpha character on the Fiscal Year screen in RefData module.
  - Found an issue with FY Start and FY End Validation in several grids in RefData Module – this metadata issue was sent to DB programmers for fixing.
  - Found an issue with RefData grids update using generic grid approach, fixed the issue.
  - Found the issue with treegrids for Fund in the RefData module, fixed it.
  - Continued to work on processes for more rapid QA and correction of metadata
  - Continued on creation of metadata load processes and procedures
  - Continued created metadata for allocations reports

- Continued worked on shakeout of the Allocation screens.
- Work on moving long running process queue polling job to a link server

*Work Planned (February 1st - February 29th)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Continue working in the design meetings for Performance Module.
- Automate ETL packages for future runs.
- Execute BFS loads and extracts upon request.
- Data Capture:
  - Filling in gaps in metadata and processes.
  - Complete back end work to support ESP Allocations screens and reports.
  - Complete database support for the Allocation Reporting Module.
  - Complete database support for the Fund incorporation into RefData Module.
  - Start working on Performance module data capture.
- System development and support:
  - Continue working on the Items on the UAT results list.
  - Complete and deliver Fund/Approp/Subapprop RefData creation with non treeview approach.
  - Strat and continue working on Performance Module UI and back end.
  - Complete SQL Build logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.
  - Complete work on adding a way to save and display Filter used for applying certain adjustment/factor combination in Modeling.
  - Shakeout problems and testing of different Resources Grids.
  - Continue with design of custom code injection to prevent hard codes from making BFS generally usable by all agencies.
  - Work with application developers to make the merge forward user error be handled in bulk data validation rather than with a mysterious error message.

## PROJECT DELIVERABLES

For the reporting period January 1<sup>st</sup> – January 31<sup>st</sup> 2016

Deliverable	Date
Year End Quarterly & Technical (Hill Technical Monthly 1_7_2016-Extra Lines.xlsx) (Quarterly Hill 1_7_2016.xlsx) (Hill Technical Monthly 1_7_2016 (with codes)-Extra Lines.xlsx)	1/7/2016
Year End Quarterly & Technical (Quarterly Hill 1_8_2016.xlsx) (Hill Technical Monthly 1_8_2016 (with codes)-Extra Lines.xlsx) (Hill Technical Monthly macro.zip.allow) (Quarterly Hill macro.zip.allow) (Hill Technical Monthly 1_8_2016-Extra Lines.xlsx)	1/8/2016
2017 CJ (CJ_macro.docm) (CJ output jan11.zip.allow)	1/11/2016
Year End Quarterly & Technical Quarterly Hill 1_11_2016 (Hill Technical Monthly 1_12_2016 (with codes)-Extra Lines.xlsx)	1/12/2016
Exhibit 53 (2016-01-12 Exhibit 53.pdf)	1/12/2016
Updated Exhibit 53 (2016-01-13 Exhibit 53.pdf)	1/13/2016
Updated Year End Quarterly (Quarterly Hill 1_19_2016.xlsx) (Updated Quarterly Hill 1_19_2016.xlsx) (quarterly_hill.sql)	1/19/2016
December 2015 project status and cost reports (EPA-CFO_December_2015_Status.doc, EPA OCFO BAS cost report December 2015.xlsx)	1/19/2016
2016 Congressional Reprogramming reports (1_20_2016 Congr_Quarterly (with codes).xlsx) (1_20_2016 Congr_Quarterly.xlsx) (2016 Qtr Congr Macro-Carryover.zip.allow) (CO version.jpg)	1/20/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report February 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**March 11, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (March 1st - March 31st)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

No activity during the reporting period.

*Work Performed (February 1st - February 29th)*

- Continued updating the configuration diagram for controlling the backup process.
- Updated the System Characterization Document to reflect recent changes and updated the diagrams for configuration and data flow.
- Updated the ISCP document to reflect recent changes and updated the diagrams for configuration and data flow.
- Continued to create agendas, schedule and attend DR and backup update meetings, update or create action items based on info that came out of the meetings.
- Continued to update the document that describes the process to use the One Drive for getting backups to KeyLogic.
- Schedule a Disaster Recovery exercise.
- Tested an import with the Data pump backup file at Keylogic. Worked well. Additional testing needs to be done.

*Work Planned (March 1st - March 31st)*

- Schedule a Disaster Recovery exercise.
- Finalize the document that describes the process to use the One Drive for getting backups to KeyLogic.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (February 1st - February 29th)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- Assisted users to figure out their issue with the Reprogramming Import file format and data in the file.
- Assisted users to figure out the discrepancy in the Adhoc reports versus Standard Reprogramming reports.
- Figured out and fixed the issue with the security when new Reprogramming Item is being created. Tested and delivered.
- Figured out and fixed the issue with combined Resource and Reprogramming Adhoc report with the order of the columns selected – tested and delivered.
- Created NOA 2016 Congressional Standard Report and incorporated it into BAS Standard Reporting module.
- Modified Versions Selection screen for Congressional Reports to allow users to see more information about the Versions selected.



- Spent time debugging and tweaking the VBA macro logic to handle the new format due to the program area spreadsheet differences.
- Assisted users with figuring out issues with Reprogramming Import process.

*Work Planned (March 1st - March 31st)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (February 1st - February 29th)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (March 1st - March 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (February 1st - February 29th)*

None

*Work Planned (March 1st - March 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

#### *Work Planned (March 1st - March 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

None

#### *Work Planned (March 1st - March 31st)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

### *Work Performed (February 1st - February 29th)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

### *Work Planned (March 1st - March 31st)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (February 1st - February 29th)*

- PERS miscellaneous support
  - Multiple PERS versions accesses modifications as well as linking versions to fiscal years.

#### *Work Planned (March 1st - March 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

- None

#### *Work Planned (March 1st - March 31st)*

- Continue efforts to develop and revise system documentation, if requested.

### **Task 3: Financial and Other Reporting Requirement Support**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, security issues, connectivity on CDW, BAS SQL Server, F5, BAS Oracle server, Nightly imports.
- Investigated the nightly import failure issue due to CDW connectivity problem.

#### *Work Planned (March 1st - March 31st)*

- Continue to support budget/finance related reports, as requested by client.

### **Task 4: Data Warehousing Support**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (February 1st - February 29th)*

None

#### *Work Planned (March 1st - March 31st)*

- Support OCFO staff as requested.

### **Task 5: Administrative Database Application Development and Maintenance**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (February 1st - February 29th)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - General:

- Discovered a problem connecting to the COMPASS system when all my nightly jobs failed. After some investigation, turns out it was a planned outage.
- Found that my access to the agent log on DCAOESO1 was revoked. Contacted Prakash Punj and requested access be restored and it was.
- Helped Valerie Wright with questions regarding her expired notes ID password.
- Budget Submission (Rebecca Muse/Jackye Herzfeld)
  - Answered questions about missing performance tables in the merged documents. Tables showed up for me. Problem was with the laptop Jackye was using apparently.
  - Helped with getting index generated for completed merge.
  - Helped with some structure changes in the lotus notes database.
  - Support of detach/merge macro.
  - Other support issues.
- CATD Database (Lorna Washington)
  - Made changes to the notification process so that Lorna gets notices of CAs coming due and/or overdue.
  - Added new 60 day notice for all document types.
  - Corrected some issues caused by duplicated (replication/save conflicts) records.
- GAO Request Tracking (Mark T. Howard)
  - Fixed a problem with the database name on the real database which was caused when the demo copy was created.

*Work Planned (March 1st - March 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

**Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (February 1st - February 29th)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (March 1st - March 31st)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (February 1st - February 29th)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
  - OCFO-HQ overdue patch count has increased due to one problematic server, w1742bdcpk008 that hosts the VMs. Many patches are failing to apply. Having to apply one Microsoft patch at a time then restart. This is taking a long time.
- Provided end user desktop support.
  - Reinstall BigFix and Symantec on Mustafa's COOP machine. Bring machine up to spec.
  - Replace toner cartridges in Tracy and Michele's printers.
  - Assist Gul with drive mappings.
  - Set up new user Charlene Diaz with BAS desktop shortcut, drive mappings.
  - Troubleshoot remote mapping problems on Jackye's and Laurel's machines.
  - Assist Glen Cuscino with drive mapping problem. Missing from security group.
  - Reinstall BigFix on the BAS lab computer. Installed Office 2013 using my license. Prep computer for use by Valerie Wright on 2/6/2016 (weekend). Set computer up in Hamilton's old cube.
- Apply new BAS builds to the BAS Citrix environments and file server. The first copying of the files to the file server crashed the server and had to do an emergency restart with OEI. After that, implemented quick verification/testing process using the BAS Test app on Citrix.
- Work with Jason Petters from the MDT imaging team to troubleshoot reimage of the Toshiba laptops. Imaging process is now working, however cannot complete the imaging because the computers lack an encryption chip (TPM) since they are consumer vs. business grade laptops.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 8 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Troubleshoot nightly SQL job failure.
- Dark fiber connection still not live/active between WJC and PY. Target is end of March.
- Attend meetings on BAS proxy server connection from BFS Azure.
- Rename Oracle DR server and make it a stand-alone hot ready Oracle box.
- Respond to security port scan results that required remediation.

- Configure notifications on the SQL box. Install BLAT and reconfigure Actuals job so a script can be run to notify admins about job failures and success. The configuration and emails are working correctly.
- Attend IPv6, BigFix patching and MDT meetings.

*Work Planned (March 1st - March 31st)*

- Attend IPv6, BigFix patching and MDT meetings.
- Work on server migration plan for migrating remaining servers from WJC to PY after the Dark Fiber connection is up and running at the end of March.

## **Task 8: Web-Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- Comment on SLCM documentation changes needed for future releases.

*Work Performed (January 1st - January 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
  - Reviewed for internal use EPA's design and requirements documents for Performance module.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared for internal use documents in support of BFS deployment outside of EPA.
  - Prepared questions and comments on EPA design and requirements documents; reviewed EPA responses.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
  - Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued to work on the design, implementation and data flow of the Security aspects.
  - Continued on design of structure to allow the building of data models for the metadata driven report process.
  - Continued on numerous discussions on strategies to use to implement the needed relationship metadata for the new display only columns in the new RDE grids.
  - Prepared additional questions and sent to the client for Performance, several meetings took place.



- Participated in the meetings for ProgramArea reporting in BFS.
- Continued discussing ways to use pattern based approach to managing metadata and designing procedures that are based on these patterns.
- Developed plan for migrating database changes to Azure environment.
- Participated in internal meetings and working sessions for development of the Performance Module.
- Developed database objects for Performance Module.
- Had discussions and meetings internally and with clients.
- Corrected User keyword issue for Version management
- Entered Catalog metadata for the following Performance tables: Ref Theme, Ref Measure Direction, Ref Grouping, Ref Performance Indicator Class, Ref Performance Indicator Type, Ref PFS Data Type, Ref Objective Mission Type, Ref Measurement Aggregation Type
- Had discussions and meetings internally on Catalog metadata, Grid metadata, SQL Build and Components metadata, Performance module.
- Data Capture:
  - Participating on building out first drafts of new database objects needed to support Performance module processes.
  - QA ed database Performance data load, noticed that not all standard columns were in the Ref tables, made recommendations to person responsible.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – incorporated Performance Ref Data into RefData module.
  - Completed first draft of a metadata management document.
  - Worked on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on the screens for Performance Modules.
  - Worked on fixing multiple errors in Modeling module screens after migration to DevExpress 15.2.5.
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued on creation of metadata load processes and procedures.
  - Continued created metadata for allocations reports.
  - Continued worked on shakeout of the Allocation screens.
  - Work on moving long running process queue polling job to a link server.

*Work Planned (March 1st - March 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Continue working in the design meetings for Performance Module.
- Continue work on the design, implementation and data flow of the Change Tracking process.

- Continue to work with architect on testing and implementation
- Continue to work on the design, implementation and data flow of the Security aspects.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Begin implementing all metadata entry as patterns; change pattern design as needed.
- Data Capture:
  - Filling in gaps in metadata and processes
  - Continued to QA database Performance data loads
  - System development and support
  - Work on Performance Module screens functionality.
  - Work on various Database support needed for Performance Module.
- System development and support:
  - Continue working on the Items on the UAT results list.
  - Complete and deliver Fund/Approp/Subapprop RefData creation with non treeview approach.
  - Strat and continue working on Performance Module UI and back end.
  - Complete SQL Build logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.
  - Complete work on adding a way to save and display Filter used for applying certain adjustment/factor combination in Modeling.
  - Shakeout problems and testing of different Resources Grids.
  - Continue with design of custom code injection to prevent hard codes from making BFS generally usable by all agencies.
  - Work with application developers to make the merge forward user error be handled in bulk data validation rather than with a mysterious error message.

## PROJECT DELIVERABLES

For the reporting period February 1<sup>st</sup> – February 29<sup>th</sup> 2016

Deliverable	Date
Congressional Quarterly carryover report (2_3_2016 Congr_Quarterly (with codes).xlsx) (2_3_2016 Congr_Quarterly.xlsx) (CO versions.jpg)	2/3/2016
Hill Monthly (Hill Tech Monthly macro.zip) (Hill Technical Monthly 2_4_2016 (with codes).xlsx)	2/4/2016
State Highlights Updated with Macro (State Highlights BIS macro 2016.zip)	2/5/2016
BIS Macros pp-state/state-pp (PP State BIS macro.zip)	2/5/2016
Goal Reports (t1_appr_dollars.docx) (t1_appr_FTE.docx) (t2_g1.docx) (t2_g2.docx) (t2_g3.docx) (t2_g4.docx) (t2_g5.docx) (t2_goal.dollars.docx) (t2_goal_FTE.docx) (CJ_macro.docm)	2/5/2016
January 2016 project status and cost reports (EPA-CFO_January_2016_Status.doc, EPA OCFO BAS cost report January 2016.xlsx)	2/10/2016
NOA Quarterly (2_11_2016 Congr_Quarterly NOA (with codes).xlsx) (2_11_2016 Congr_Quarterly NOA.xlsx)	2/11/2016
2016 Congressional Reprogramming reports (2_11_2016 Congr_Quarterly (with codes).xlsx) (2_11_2016 Congr_Quarterly.xlsx) CO version.jpg)	2/11/2016

Front-end files containing modifications to the  
Reprogramming screen security  
(basbuild\_02172016.basreprog.zip) 2/17/2016

Front-end files containing modifications to the  
NOA congressional report  
(basbuild\_02182016.basadhoc.zip)  
(basbuild\_02182016.basrpts.zip) 2/18/2016

Front-end files containing modifications to the  
Standard report for the Reprogramming report.  
(basbuild\_02242016.bassuprt.zip)  
(basbuild\_02242016.basrpts.zip) 2/24/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report March 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**April 8, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (March 1st - March 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (April 1st - April 30th)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

No activity during the reporting period.

*Work Performed (March 1st - March 31st)*

- Tested access to the BAS test server remotely and that works as expected.
- Database re-load was completed but access remotely to the DR server is not possible, need to put in a request to get access to that server.

*Work Planned (April 1st - April 30th)*

- Schedule a Disaster Recovery exercise.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (March 1st - March 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- Assisted users with inactive timeouts questions.
- Verified the proper versions in the setting of the 2016 NOA Standard Report.
- Assisted users in figuring out the problem with hardcoded NPM Short Titles in the view used for OSWER ACS data pulls.
- Estimated the effort for budget loads from BAS into Compass with the new ACS structure.
- Changed view used by PAT system users for their data pulls to reflect the new name of the office, OLEM rather than OSWER.

*Work Planned (April 1st - April 30th)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (April 1st - April 30th)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

None

*Work Planned (April 1st - April 30th)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

**Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (April 1st - April 30th)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.



- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (March 1st - March 31st)*

None

#### *Work Planned (April 1st - April 30th)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

#### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

#### *Work Performed (March 1st - March 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

#### *Work Planned (April 1st - April 30th)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source

- data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (March 1st - March 31st)*

- New Strategic Plan work – Performance Measures/PERS

#### *Work Planned (April 1st - April 30th)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- None

*Work Planned (April 1st - April 30th)*

- Continue efforts to develop and revise system documentation, if requested.

## **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, security issues, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did loads for 2016 ACT 5.0 before and after CDW refresh.
- Investigated ZZZBE5 and ZZZNF2 getting NS program projects issue.
- Ran scripts in BAS for view for getting data in ACS from PAT.

*Work Planned (April 1st - April 30th)*

- Continue to support budget/finance related reports, as requested by client.

## **Task 4: Data Warehousing Support**

### *Client Actions/Decisions Required*

None

### *Work Performed (March 1st - March 31st)*

None

### *Work Planned (April 1st - April 30th)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

### *Client Actions/Decisions Required*

- None

### *Work Performed (March 1st - March 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - General:
    - Received email from EPA telling me my token was set to inactive. Had to contact support to find out what was going on since it was not inactive and I am still using it. Was told to ignore email and continue using it as I have been.
    - Reviewed list of lotus notes databases which are SharePoint migration candidates again. Sent my recommendations to Jackye.
  - CATD Database (Lorna Washington)
    - Helped Lorna with a question about adding new offices to the database for use in the audit form drop-down selectors.
    - Responded to request to add Nicholas Grzegozewski into the system with the same rights as Lorna.
    - Helped Lorna with getting some groups updated. Explained that groups in Exchange/Outlook must also have their counterpart in lotus notes changed.
    - Lorna requested some target due dates be updated because they were entered incorrectly and the system will not allow you to change them. I created a quick program to do this and instructed her on how to use it.
  - Program/Project Book Database (Derek Chin)
    - Assisted Derek with getting 2016 records setup and skipping 2015. Explained that you have to move to 2015, then to 2016 to correctly get everything switched.

*Work Planned (April 1st - April 30th)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

**Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (April 1st - April 30th)*

- Install BAS front and back end as necessary to implement system revisions.

**Task 7: Project Management/Technical Assistance**

*Client Actions/Decisions Required*

None

*Work Performed (March 1st - March 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
  - Continued to chip away and reducing problematic server w1742bdcpk008 that has overdue patches. Many patches are failing to apply. Having to apply one Microsoft patch at a time then restart. This is taking a long time.
- Provided end user desktop support.
  - Tested Citrix pass-thru authentication. Configuration/functionality was problematic, rolled back to previous configuration.
  - Troubleshoot VPN access changes for Jackye and Janet.
  - Identify cable required for configuring Jackye's laptop for use with multiple monitors, mirror same screen on two.
  - Ensure Sarah VanFossen, Dena Rawls, and Davetta Peters have access to BAS.
  - Set up new user Patricia Tidwell-Shelton.
  - Assist Tracy with Techno Trash.

- Assist with offline O: and S: drives.
  - Assist Jenee Sharon with BAS access problem.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 8 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Requested Windows 10 pilot testing participation.
- Review response for FDCCI Data Call.
- Work with Shelly to have Nessus scan of our servers. Begin proactive remediation of security risks.
- Work with helpdesk to troubleshoot my email encryption problem.
- Work on plan for configuring new COOP laptops that can't receive the official EPA image.
- Create script that monitors file server share accessibility. The script will send notification if not accessible.
- Assist with BFS security scans.
- Ensure KeyLogic remote workers can access EPA network via the new BPWorkplace Juniper access.
- Clean up old NAS files as we were running out of space on the 4 TB drive.
- Dark fiber connection still not live/active between WJC and PY. Target is end of March.
- Respond to security port scan results that required remediation.
- Attend IPv6, BigFix patching and MDT meetings.

*Work Planned (April 1st - April 30<sup>th</sup>)*

- Test performance of BAS desktop client when Oracle resides at Potomac Yard. If performance is acceptable, then present migration plan to Jackye for migrating remaining servers to PY. Dark Fiber connection is up and running. Launch time of BAS has improved, but not what it was when file server was at HQ.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Remediate all server security vulnerabilities.
- Work with Mike Callewaert to define account access policy on servers.

## **Task 8: Web-Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- Comment on SLCM documentation changes needed for future releases.

*Work Performed (March 1st - March 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
  - Reviewed for internal use EPA's design and requirements documents for Performance module.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies
  - Prepared questions and comments on EPA design and requirements documents; reviewed EPA responses.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
  - Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued to work on the design, implementation and data flow of the Security aspects.
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Continued on design of structure to allow the building of data models for the metadata driven report process.
  - Prepared additional questions and sent to the client for Performance Module, multiple meetings took place.
  - Participated in several meetings for Program Area reporting in BFS.
  - Continued discussing ways to use pattern based approach to managing metadata and designing procedures that are based on these patterns.
  - Participated in planning meeting for OPIC pilot.
  - Studied Metadata Management documents and database structures.
  - Created a new App Table Type for performance table requirements.
  - Created a new Column Data type code for varbinary in metadata.
  - Changed the metadata helper stored procs (clear portion) to make them table specific.
  - Entered Catalog metadata for the following Performance tables: Ref Agency Data Element, Ref Frequency Period, Ref Goal Time Period, Ref Performance Indicator Class, Ref Performance Indicator Type, Ref Result Qualifier, PFS Agency Data Element Value, PFS Element Theme, PFS Element Tree, PFS Element Type, PFS File, PFS Milestone, PFS Performance Goal, PFS Performance Goal Grouping, PFS Performance Goal Indicator, PFS Quantitative Measure, PFS Strategic Objective, PFS Strategic Plan Year.
  - Created tables and views for Congressional Program Area Reporting.

- Had discussions and meetings internally on Catalog metadata, Grid metadata, SQL Build and Components metadata, Performance module, Congressional Program Area.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – PerfRefData and Data Entry screens.
  - Continued updating metadata management document.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on fixing issues with RefData incorporated into Performance Modules.
  - Continued working on fixing issues in Modeling module screens after migration to Dev Express 15.2.6.
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued creating metadata for allocations reports.
  - Continued working on shakeout of the Allocation screens.
  - Continues working on moving long running process queue polling job to a link server.
  - Worked on the dynamic grids to be used in Performance Data Entry screen.
  - Fixed the issue with bit type columns in Generic Edit Grid.
  - Created metadata grids for Strategic Goal, Strategic Objective, Performance Goal and Performance Indicators.
  - Added handling of the issue in Modeling when the source version has zero resources.
  - Participated in figuring out Data problems in Modeling Base Costs, discussion with the client on the ways to handle the issues.
  - Multiple modifications of the code in the Modeling module in an attempt to figure out why the changes in the Security affected the performance.
  - Continued working on fixing bugs accordingly to the list of the Work Items in TFS.

*Work Planned (April 1st - April 30th)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Continue working in the design meetings for Performance Module.
- Coordinate work for OPIC pilot.



- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation
- Continue to work on the design, implementation and data flow of the Security aspects.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Begin implementing all metadata entry as patterns; change pattern design as needed
- Continue working on ProgramArea Module/Reports design and implementation.
- Data Capture:
  - Filling in gaps in metadata and processes
  - Continued to QA database Performance data loads
  - System development and support
  - Work on Performance Module screens functionality.
  - Work on various Database support needed for Performance Module.
  - Work on Database support for ProgramArea screens/reports.
- System development and support:
  - Continue working on the Items on the UAT results list.
  - Complete and deliver Fund/Approp/Subapprop RefData creation with non treeview approach.
  - Continue working on Performance Module UI and back end.
  - Complete SQL Build logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.
  - Complete work on adding a way to save and display Filter used for applying certain adjustment/factor combination in Modeling.
  - Shakeout problems and testing of different Resources Grids.
  - Continue with design of custom code injection to prevent hard codes from making BFS generally usable by all agencies.
  - Work with application developers to make the merge forward user error be handled in bulk data validation rather than with a mysterious error message.

## PROJECT DELIVERABLES

For the reporting period March 1<sup>st</sup> thru March 31<sup>st</sup> 2016

<b>Deliverable</b>	<b>Date</b>
February 2016 project status and cost reports (EPA-CFO_February_2016_Status.doc, EPA OCFO BAS cost report February 2016.xlsx)	3/10/2016
Hill Monthly Technical (Quarterly Hill 3_11_2016.xlsx) (Quarterly Hill Macro.zip.allow)	3/16/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report April 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**May 10, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (April 1st - April 30th)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (May 1st - May 31st)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.

*Work Performed (April 1st - April 30th)*

- No activity during the reporting period .

*Work Planned (May 1st - May 31st)*

- Schedule a Disaster Recovery exercise.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (April 1st - April 30th)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support
- Started a test to determine if BAS will run on Oracle12c
- Assisted users with tracking inactive and deleted users.
- Copied ACS measures missing from FY 2017 using FY 2016 as a source.
- Modified Stored Procedure to copy ACS measures with filters for missing 2017 measures.

*Work Planned (May 1st - May 31st)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (May 1st - May 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

None

*Work Planned (May 1st - May 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

**Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (May 1st - May 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:

- Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
- Meet to identify and discuss any outstanding DR issues and resolve them.
- Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (April 1st - April 30th)*

None

#### *Work Planned (May 1st - May 31st)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

#### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

#### *Work Performed (April 1st - April 30th)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

#### *Work Planned (May 1st - May 31st)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for

- required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
  - Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (April 1st - April 30th)*

- New Strategic Plan work – Performance Measures/PERS

*Work Planned (May 1st - May 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.



### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- None

*Work Planned (May 1st - May 31st)*

- Continue efforts to develop and revise system documentation, if requested.

### **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did loads for 2016 ACT 6.0 in BAS.

*Work Planned (May 1st - May 31st)*

- Continue to support budget/finance related reports, as requested by client.

### **Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

None

*Work Planned (May 1st - May 31st)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (April 1st - April 30th)*

- Continued to provide Lotus Notes expertise in support of multiple database applications.
  - CATD Database (Lorna Washington)
    - Helped Nicholas Grzegozewski with accessing the database.

*Work Planned (May 1st - May 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (May 1st - May 31st)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (April 1st - April 30th)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
  - Continued working on patching backlog on problematic server w1742bdcpk008. Many patches are failing to apply. Having to apply one Microsoft patch at a time then restart.
- Provided end user desktop support.
  - Applied additional updates to Janet's machine.
  - Troubleshoot VPN access changes for Jackye and Janet. Janet's remote access is full now without the AAA token.
  - Corrected a "Read" only problem for users on the OCFO file shares.
  - Set up new users BAS user Kelly Gorini.
  - OEI changed our file server IP address without our knowledge. Worked with Eric post episode to review what happened, why and identify what is needed for the next attempt.
  - Set up new user Beth Baden. User is out of printer toner, ordered and waiting for it to arrive.
  - Worked on Mustapha's COOP machine. Machine had dropped off of BigFix. Resolved that issue, updated and instructed Mustapha on what to map to during COOP exercise.
  - Set up new BAS user Nikki Wood.
  - Assist Michele Wilburn with requesting and setting up a loaner laptop for the Budget Technical Workshop.
- Ongoing management and maintenance of all physical servers and server VMs.
- Tested email encryption sending and viewing with Shelly.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 8 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- CTS machine reimaged with Windows 10. Using and testing Windows 10.
- Review C&A results.
- Attend HPE-EPA CDM Assessment meeting with Mike Callewaert.
- Downloaded Windows 10 from Microsoft's volume licensing center. Successfully installed Windows 10 on one of the Toshiba laptops. Also installed Office, Symantec AV and all required software that is standard/included in the EPA image.
- Work with Shelly to have Nessus scan of our servers. Remediated many Nessus identified security risks.

- Requested AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole.
- Created and implemented real time failed server login notifications.
- Dark fiber connection is active between WJC and PY. While performance has improved, launching BAS with the desktop shortcut still takes ~45 seconds to load. Requested host machine at PY so we can test performance of BAS when database is at PY datacenter.
- Attend IPv6, BigFix patching and MDT meetings.

*Work Planned (May 1st - May 31st)*

- Test performance of BAS desktop client with Oracle database at Potomac Yard.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Remediate the remaining (overdue) Critical and Important patches on server 008.

## **Task 8: Web Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

None

*Work Performed (April 1st - April 30th)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
  - Reviewed for internal use EPA's design and requirements documents for Performance module.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
  - Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued to work on the design, implementation and data flow of the Security aspects.
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Continued on design of structure to allow the building of data models for the metadata driven report process.

- Prepared additional questions and sent to the client for Performance Module, multiple meetings took place.
- Participated in several meetings for Program Area reporting in BFS.
- Continued discussing ways to use pattern based approach to managing metadata and designing procedures that are based on these patterns.
- Added new rollup columns to existing modeling structures for relevant Base Costs.
- Worked on Program Area Reporting view.
- Populated data for Program Area Reporting from BAS to BFS.
- Made changes to modeling packages and ran against different databases for move to production.
- Created the document for migration of modeling changes to production.
- Added missing FKs to Model Base Detail.
- Analyzed the missing Fund-hierarchy data and added missing columns in Fund data.
- Changed the metadata helper stored procs parameter names to make them consistent throughout.
- Entered Catalog metadata for the following Performance tables: Ref OMB Agency, Ref OMB Bureau.
- Had discussions and meetings internally on Modeling data duplicate records issue, Modeling Rollup Column Changes, Database migration tasks, Program Area Reporting.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Continued working on the data problems found with the cross walking of the Base Cost data from BAS in Modeling.
- System development and support:
  - Added case statement to logic which builds SQL from metadata.
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – Performance Goals and Data Entry screens.
  - Continued updating metadata management document.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Added modifications to the generic objects to specifically determine what records are duplicates in the Data Source.
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued creating metadata for allocations reports.
  - Continued working on shakeout of the Allocation screens.
  - Continues working on moving long running process queue polling job to a link server.
  - Worked on the dynamic grids to be used in Performance Data Entry screen.

- Due to the merge problems had to fix the issue with bit type columns in Generic Edit Grid.
- Participated in figuring out Data problems in Modeling Base Costs, had discussions with the client on the ways to handle the issues.
- Worked on the separation of the code or Version Management and Version Selectors.
- Worked on making the Version Selector to work as a popup control per client's request.
- Incorporated new Version Selector into all relevant modules.
- Fixed the problem with the differences in Font sizes in the dropdowns versus main grids.
- Figured out and fixed the issue with SubRCenter used as a rollup column in Base Cost.
- Worked on fixing multiple issues caused by merging of different BFS branches.
- Added the change to the HQ/RT code to be a foreign key id to a ref table to replace the code in data entry grids.
- The change to the HQ/RT code to be a foreign key id to a ref table to replace the code in adhoc reports

*Work Planned (May 1st - May 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation.
- Continue to work on the design, implementation and data flow of the Security aspects.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Begin implementing all metadata entry as patterns; change pattern design as needed
- Continue working on Program Area Module/Reports design and implementation.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Work on any module that will become the highest priority during next reporting period.
  - Continue working on the items on the UAT results list.
  - Complete and deliver Fund/Approp/Subapprop RefData creation with non treeview approach.
  - Continue working on Performance Module UI and back end.

- Add concatenation to SQL Build logic
- Continued work on identifying metadata patterns and implementing processes to automate metadata management
- Continue working on standardizing screen appearance in different modules.
- Complete work on adding a way to save and display Filter used for applying certain adjustment/factor combination in Modeling.
- Shakeout problems and testing of different Resources Grids.
- Continue with design of custom code injection to prevent hard codes from making BFS generally usable by all agencies
- Work with application developers to make the merge forward user error be handled in bulk data validation rather than with a mysterious error message
- Continue working on various Database support needed for Performance Module.
- Continue working on Database support for Program Area screens/reports.

## PROJECT DELIVERABLES

For the reporting period April 1<sup>st</sup> thru April 30th 2016

Deliverable	Date
Quarterly Congressional NOA Macro Congressional Quarterly NOA (with codes) Congressional Quarterly NOA (Qtr Congr NOA macro.zip.allow) (4_1_2016 Congr_Quarterly NOA (with codes).xlsx) (4_1_2016 Congr_Quarterly NOA.xlsx)	4/1/2016
March 2016 project status and cost reports (EPA-CFO_March_2016_Status.doc, EPA OCFO BAS cost report March 2016.xlsx)	4/8/2016
Hill Monthly Technical (Hill Technical Monthly 4_11_2016 (with codes).xlsx) (Hill Technical Monthly 4_11_2016.xlsx)	4/11/2016
Quarterly Hill (Quarterly Hill 4_12_2016.xlsx)	4/12/2016



# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report May 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**June 15, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (May 1st - May 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (June 1st - June 31st)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.

*Work Performed (May 1st - May 31st)*

- No activity during the reporting period .

*Work Planned (June 1st - June 31st)*

- Schedule a Disaster Recovery exercise.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (May 1st - May 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
- Continued testing to determine if BAS will run on Oracle12c.
- Copied ACS measures missing from FY 2017 using FY 2016 as a source.
- Provided the info on how Divide By Zero is being handled in BAS to BFS developers.
- Provided ESP Allocation reports examples in BAS to BFS developers.
- Client support on creating Raw Payroll Data Header.

*Work Planned (June 1st - June 31st)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (June 1st - June 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

None

*Work Planned (June 1st - June 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

**Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (June 1st - June 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:

- Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
- Meet to identify and discuss any outstanding DR issues and resolve them.
- Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (May 1st - May 31st)*

None

#### *Work Planned (June 1st - June 31st)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

#### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

#### *Work Performed (May 1st - May 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

#### *Work Planned (June 1st - June 31st)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for

- required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
  - Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (May 1st - May 31st)*

- New Strategic Plan work – Performance Measures/PERS

*Work Planned (June 1st - June 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

- None

*Work Planned (June 1st - June 31st)*

- Continue efforts to develop and revise system documentation, if requested.

### **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did loads for 2016 ACT 7.0 in BAS.

*Work Planned (June 1st - June 31st)*

- Continue to support budget/finance related reports, as requested by client.

### **Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

None

*Work Planned (June 1st - June 31st)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (May 1st - May 31st)*

- None

*Work Planned (June 1st - June 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (May 1st - May 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (June 1st - June 31st)*

- Install BAS front and back end as necessary to implement system revisions.



## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (May 1st - May 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
  - Citrix IMA service password expired which prevented users from logging into Citrix desktop. Updated password and service back up and running.
  - Set up BAS desktop shortcut for Kelly Gorini. Show Kelly how to map the O: drive using Remote Mapper.
  - Successfully built Windows 10 COOP machine and delivered it to Joe Layman.
  - Assist Carol Vogel with accessing BAS.
  - Assist Jacob Simmons with BAS desktop shortcut update.
  - Assist Peter Dragon with BAS desktop shortcut update.
  - Assist Lisa Jenkins with BAS desktop shortcut update.
  - Assist Tiffany Cooper with BAS desktop shortcut update. Provide instructions on how to map O: drive with Remote Mapper.
  - Assist Carolin Commodore with BAS desktop shortcut update.
  - Assist Kiyana Hardeman with BAS desktop shortcut update.
  - Map copier/printer for Solymar Grecco. Assist with Excel formatting for printing.
  - Provide O: drive mapping instructions to Andrew Cardenas.
  - Provide O: drive mapping instructions to Shelley Costa.
  - Assist Kay Austin with access BAS.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 8 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Provide Physical/VM server list with IPs to Eric.
- Create instructions with screenshots for updating the BAS desktop shortcut. This had to be done because shortcut was using IP address instead of DNS name for the file server at PY. PY will be changing the IP address of the server which will break the current BAS shortcut if not updated.
- Was able to resolve the remaining overdue patches on problematic server PK008. Problem was related to the server being upgraded from 2008 to 2012 instead of doing a fresh install of 2012. This lead to Windows update file corruption.
- Work with Tracy to identify additional printers for surplus.
- Real time failed server login notifications working well. It has allowed us to be

- proactive in assisting BAS users with Citrix login problems.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Requested AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Attend IPv6, BigFix patching and MDT meetings.

*Work Planned (June 1st - June 31st)*

- Test performance of BAS desktop client with Oracle database at Potomac Yard. PY was to set up a Hyper-V host.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Investigate if possible to remediate the remaining (overdue) Critical patches for server PK015. These are SQL 2000 patches that will not apply because packager used by Microsoft to create the patches are not supported on Server 2008.
- Stand up SQL 2008 box with Analysis Services.
- Implement audit checklist/matrix to satisfy CMA deficiencies.

**Task 8: Web Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- Comments / Decision on Gates 3 and 4 memos

*Work Performed (May 1st - May 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
  - Reviewed for internal use EPA's design and requirements documents for Performance module.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
  - Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Participated in two design meetings on the Lab Cost Module.

- Participated in design of an Allocations Rollup QA report.
- Clarified requirements for Allocations processing.
- Participated in preliminary discussion on multi version edit browse.
- Participated in internal meetings and design sessions for development of the Lab Cost RDE.
- Participated in the planning and execution of the migration of SQL Server 2008 databases to SQL Server 2012.
- Created new schema and stored procs for Document Prep.
- Investigated and analyzed the Fund-Subapprop-Approp hierarchy data.
- Analyzed ACT final versions data in BAS.
- ETL of ACT final versions (obligations part) for past 3 yrs from BAS to BFS.
- Added new dimension data for BOC, Detailed Costs, XWalkOrg.
- Created scripts for migration across various databases and move to Production.
- Made changes to modeling packages by updating connections to new ones
- Created the document for verification of versions brought in from BAS.
- Analyzed the program project data regarding program flag, ENV-ESP, null goals in PRCs.
- Changed the metadata helper stored procs to make them flexible for use across different schema.
- Had discussions and meetings internally on Document Prep, Lab Costs, Modeling Rollup Column Changes, Database migration tasks, Program Area Reporting.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Continued working on the data problems found with the cross walking of the Base Cost data from BAS in Modeling.
  - Worked on creating views for allocations reporting and tuning the views for better performance.
  - Design and coding of stored procedures to support allocations queries.
  - Testing and fault removal of existing allocations stored procedures.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – Performance Goals and Data Entry screens.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Added modifications to the generic objects to specifically determine what records are duplicates in the Data Source.
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued creating metadata for allocations reports
  - Continued working on shakeout of the Allocation screens.
  - Worked on the dynamic grids to be used in Performance Data Entry screen.

- Fixed issue with bit type columns in Generic Edit Grid due to the merge problems.
- Participated in figuring out Data problems in Modeling Base Costs, had discussions with the client on the ways to handle the issues.
- Worked on the separation of the code or Version Management and Version Selectors.
- Worked on making the Version Selector to work as a popup control per client's request.
- Incorporated new Version Selector into all relevant modules.
- Fixed the problem with the differences in Font sizes in the dropdowns versus main grids.
- Figured out and fixed the issue with Sub R Center used as a rollup column in Base Cost.
- Worked on fixing multiple issues caused by merging of different BFS branches.
- Multiple modifications to Set Generic Edit Grid to make it more generic.
- Implemented Set Generic Edit Grid in several Modeling screens.
- Found and fixed issues on Base Cost Rollups screen.
- Fixed the issue reported on RDE when invalid PRC was entered and tabbing after.
- Assisted other BFS developers to incorporate Version Selector popup into screens.
- Worked on resizing of the popups within BFS accordingly to a different screen resolutions.
- Modified the default filter on the Version Selector to include certain cycle.
- Developed and tested database objects to select and update data in the Performance Module
- Deployed database changes to Azure environment
- Configured the SQL Server server on Azure to establish connectivity between BFS on Azure and production BAS

*Work Planned (June 1st - June 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Work out metadata driven method to deal with a complex RDE grid that can view and edit multiple records per on screen record.
- Continue working on Program Area Module/Reports design and implementation.

- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Continue to design and build database objects for the Performance Module
  - Manage database change scripts for deployment to Azure
  - Support in the development of the Lab Cost RDE and creating objects for Lab Cost module.
  - Continue working on Database support for Program Area screens/reports.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Add concatenation to SQL Build logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.
  - Complete work on adding a way to save and display Filter used for applying certain adjustment/factor combination in Modeling.

## PROJECT DELIVERABLES

For the reporting period May 1<sup>st</sup> thru May 31<sup>st</sup> 2016

Deliverable	Date
2016 Quarterly Macro (Quarterly Hill Macro.xlsm) (quarterly_hill.sql)	5/9/2016
April 2016 project status and cost reports (EPA-CFO_April_2016_Status.doc, EPA OCFO BAS cost report April 2016.xlsx)	5/10/2016
March Monthly Hill Technical (first pass) –revised (Hill Technical Monthly 5_12_2016 (with codes).xlsx) (Monthly Report Macro updates.docx)	5/12/2016
March Monthly Hill Technical -revised (Hill Technical Monthly 5_13_2016 (with codes).xlsx) (hill_technical_summary.sql) (hill_technical_summary.STAG.sql) (Hill Technical Monthly Macro.xlsm) (hill_technical_sql)	5/13/2016
Quarterly Hill Macro Reports (Quarterly Hill 5_16_2016.xlsx) (Quarterly Hill Macro.xlsm) (quarterly_hill.sql)	5/16/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report June 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**July 8, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (June 1st - June 30th)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (July 1st - July 31st)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.



*Work Performed (June 1st - June 30th)*

- No activity during the reporting period .

*Work Planned (July 1st - July 31st)*

- Continue with the Disaster Recovery exercise.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (June 1st - June 30th)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
- Provided information on the rulesets/versions relationships for ESP Allocations to BFS analyst.
- Users support in unlocking and resetting password while BAS Superusers unavailable.

*Work Planned (July 1st - July 31st)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.
- Do some additional testing to see if BAS will run on an Oracle12c database.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (July 1st - July 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

None

*Work Planned (July 1st - July 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

**Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (July 1st - July 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.

- Meet to identify and discuss any outstanding DR issues and resolve them.
- Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (June 1st - June 30th)*

None

#### *Work Planned (July 1st - July 31st)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

#### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

#### *Work Performed (June 1st - June 30th)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

#### *Work Planned (July 1st - July 31st)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real”

- uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (June 1st - June 30th)*

- ACS Miscellaneous Support
  - Added 3 new RMOs for Region 7, removed number of RMOs from the dropdown on the screen using front end, also reset RMOs for the records with those deleted in FY 2016 and 2017.
  - ACS users support for entering bidding in FY 2016.
- BAS ACS Miscellaneous Back End Support
  - Updated shareholders RMOs for the records with RMOs were deleted in FY 2016 and 2017.

#### *Work Planned (July 1st - July 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

- None

*Work Planned (July 1st - July 31st)*

- Continue efforts to develop and revise system documentation, if requested.

## **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did May month-end load into 2016 ACT 8.0 in BAS.

*Work Planned (July 1st - July 31st)*

- Continue to support budget/finance related reports, as requested by client.

## **Task 4: Data Warehousing Support**

### *Client Actions/Decisions Required*

None

### *Work Performed (June 1st - June 30th)*

None

### *Work Planned (July 1st - July 31st)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

### *Client Actions/Decisions Required*

- None

### *Work Performed (June 1st - June 30th)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - General:
    - Answered some emails regarding an access problem Janet was having when connected remotely.
  - Lotus Notes Conversion
    - Attended meeting with Jackye and Laurel to discuss schedule of conversions of Lotus Notes applications.

### *Work Planned (July 1st - July 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

### *Client Actions/Decisions Required*

None

### *Work Performed (June 1st - June 30th)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (July 1st - July 31st)*

- Install BAS front and back end as necessary to implement system revisions.

**Task 7: Project Management/Technical Assistance**

*Client Actions/Decisions Required*

None

*Work Performed (June 1st - June 30th)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
  - Update COOP laptops.
  - Assist Kay Austin with BAS setup (desktop and Citrix) on new laptop.
  - Stacy Rabkin unable to access BAS via Citrix. Investigated problem. No definitive resolution yet.
  - Assist Wyatt Boyd with BAS desktop shortcut.
  - Assist Jackye with AD account password update.
  - Assist Tracy with projector setup.
  - Troubleshoot Janet's Adobe Connect problem in IE 11.
  - Assist Steven McNeely with BAS problem/configuration.
  - Assist William Rhea with accessing BAS via Citrix.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- SQL 2000 Upgrade. Identified a possible way to migrate all SQL 2000 DTS packages to SQL Server 2008 R2. Downloaded evaluation version of Windows 2008 R2 Standard VM with SQL Server 2008 R2 from Microsoft. Restored all SQL 2000 databases from backup. Installed SQL 2005 compatibility components. Installed SQL 2000 DTS designer components. Configured designer to work within SQL 2008 R2 SQL Server Management Studio. Created test DTS package and ran successfully. Created job which executes a legacy DTS package and ran it successfully.
- Create alternate method of sending email notifications from within SQL Server. Configured "Resource Totals Actuals Import" report using new notification method

and works well. Jackye now receiving daily totals.

- Apply BAS DLL updates on June 10<sup>th</sup>.
- File server and shares went offline. Work with Gail Mason to resolve. Shares were unavailable until 2 PM on Thursday June 16th.
- Coordinate with Vijay and Milind to resolve the Oracle TNS Poisoning vulnerability on the W1742BDCDR002 server.
- Configure OneDrive subscription so that Auto-renew is turned off.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Attend IPv6, BigFix patching and MDT meetings.

#### *Work Planned (July 1st - July 31st)*

- Requested AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Test performance of BAS desktop client with Oracle database at Potomac Yard. PY was to set up a Hyper-V host for us, but no word on this yet. At this point I am in no rush to move the servers with the problems that we have experienced with our file server at PY.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Perform full configuration and test of DTS packages and jobs in SQL 2008 R2 Enterprise.
- Work with Eric to implement audit checklist/matrix to satisfy CMA deficiencies.

### **Task 8: Web Enabling our Current Client-Server Application (Optional)**

#### *Client Actions/Decisions Required*

- Comments / Decision on Gates 3 and 4 memos

#### *Work Performed (June 1st - June 30th)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.



- Participated in BFS unit and integration tests.
- Prepared for test scripts for use by Selenium automated test tool.
- Design and Review meetings:
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Team designed an approach for handling updates for any grid based on a Pivot-type query and used this approach for handling Lab Costs multi-row updates.
  - Finalized layout of Allocations Rollup QA report.
  - Worked out level-of-effort for adding new columns to existing Resource structures and supporting new columns in all grids and reports.
  - Meetings regarding adding storing and displaying Applied Adjustments Filter in Modeling.
  - Created catalog metadata for LabCosts tables - RefFacilityLocation, RefLabDatatype, LabCostSet.
  - Created grid metadata for LabCosts grids – RefFacilityLocation DE, RefLabDatatype DE, LabCostSet DE, RefFacility DE, RefLabCostCategory DE, RefLCO DE.
  - Investigated and analyzed duplicate records problem from BAS-to-BFS.
  - Analyzed ACT month-end versions data in BAS.
  - Prepared LOE spreadsheet for addition of 2 new columns OriginalPRC, OriginalOrg for modeling and BAS-to-BFS ETL.
  - Fixed delete issue and FY relative comparison issue for Ref FacilityLocation DE.
  - Made Facility Location as required in Facility DE.
  - Entered metadata for SQL Record Referenced and Metatag for LabCosts grids.
  - ETL of 2015 ACT month-end versions from BAS to BFS.
  - Sent missing Ref data for 2015 ACT month-end versions ETL.
  - Made changes to SSIS package to check for existing VersionId in VersionIdInfo table.
  - Worked on a stored proc to enter metadata for more automation.
  - Added checks for null TargetPool and AllocationPool in Allocation Rulesets ETL.
  - Had discussions and meetings internally on Document Prep, Lab Costs, Modeling Rollup Column Changes, Database migration tasks, Program Area Reporting.
  - Implemented structural changes for LabCost RDE.
  - Developed and tested database objects to select and update data in the Performance Module.
  - Coordinated and migrated database changes to Azure environment.
  - Migrated SSIS packages to SQL Server machine on Azure.
  - Modified ETL process to add 'Original PRC' and 'Original Org' columns to FactBudgetResources, FactTargetResources, and FactKeyProgramResources tables.
  - Provided database support for adding 'Applied Filter' to Modeling.
  - Reviewed data modeling tools for Performance Module design.
- Data Capture:

- Continued building out database objects needed to support Performance module processes.
  - Continued working on the data problems found with the cross walking of the Base Cost data from BAS in Modeling.
  - Worked on creating views for allocations reporting and tuning the views for better performance.
  - Completed coding of table-valued function to return Allocations Rollup QA data used in the on-screen, grid-based report.
  - Completed testing and fault removal cycles for the allocations process.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – Performance Goals and Data Entry screens.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Built out newly designed approach to handling non-core grids and system functions.
  - Modified the shared grid column load procedures and functions to handle branching to non-core functions.
  - Modified the shared grid SQL execute procedure to handle branching to non-core SQL execution procedures as needed.
  - Built out procedural logic to handle multi-row updates for Pivot-fact type grids.
  - Defined new grid and build types to support pivot-fact type grids and used these for the Lab Cost data entry screen.
  - Developed SQL Build and Grid metadata to support a Lab Cost selector function.
  - Developed grid connectivity metadata to link the Lab Cost Set selector to the Pivot RDE grid for Lab Costs.
  - Developed the Lab Cost specific grid column load function.
  - Developed the Lab Cost specific grid sql execute stored procedure.
  - Created entries in the non-core object data to link the Lab Cost specific procedures to the common core grid column and grid sql execute code.
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Extended Grid SQL Parameter to handle use of grid parameters as arguments to function calls. (Needed for the allocation rollup qa grid.)
  - Extended the Grid SQL Execute procedure to handle function arguments passed within Grid SQL Parameter (needed for the allocation rollup qa grid).
  - Added modifications to the generic objects to specifically determine what records are duplicates in the Data Source.
  - Continued creating metadata for allocations reports
  - Worked on the dynamic grids to be used in Performance Data Entry screen.
  - Due to the merge problems had to fix the issue with bit type columns in Generic Edit Grid.
  - Participated in figuring out Data problems in Modeling Base Costs, had discussions with the client on the ways to handle the issues

- Worked on the Lab Costs RefData screens.
- Worked figuring out issues with the new Agency specific project.
- Moved to Interim branch modifications to Set Generic Edit Grid to make it more generic.
- Moved implementation of SetGenericEditGrid in RefData module to the Interim Branch.
- Worked on figuring out issues with the RefData module in the Main branch – sent the results of my investigation to DB team.
- Worked on the implementation of saving and displaying of the Applied Adjustments Filter in Modeling Scenario Details screen.

*Work Planned (July 1st - July 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Manage database change scripts for deployment to Azure.
- Support in the development of the LabCost RDE.
- Become more familiar with BFS metadata by attending weekly knowledge transfer sessions and studying metadata code.
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Continue working on Program Area Module/Reports design and implementation.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Shake out of Lab Costs modules.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on Database support for ProgramArea screens/reports.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Add concatenation to SQL Build logic
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management
  - Continue working on standardizing screen appearance in different modules.

## PROJECT DELIVERABLES

For the reporting period June 1<sup>st</sup> thru June 30<sup>th</sup> 2016

Deliverable	Date
March Monthly Hill Technical - revised (Hill Technical Monthly Macro.xlsm) (Hill Technical Monthly 6_2_2016 (with codes) ACTv7.xlsx)	6/2/2016
March Monthly Hill Technical -revised (OLD Hill Technical Monthly 6_9_2016 (with codes).xlsx) (Hill Technical Monthly 6_9_2016 (with codes).xlsx)	6/9/2016
Front-end files containing modifications to the RMOs displayed for Reg 07 in 2016/2017 (basbuild_06092016_Bascommit.zip)	6/9/2016
May 2016 project status and cost reports (EPA-CFO_May_2016_Status.doc, EPA OCFO BAS cost report May 2016.xlsx)	6/15/2016
March Monthly Revised (Hill Technical Monthly Macro.xlsm) (Hill Technical Monthly 6_21_2016 (with codes).xlsx) (hill_technical.sql) (hill_technical_summary.STAG.sql) (hill_technical_summary.sql)	6/21/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report July 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**August 11, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (July 1st - July 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (August 1st - August 31st)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.

*Work Performed (July 1st - July 31st)*

- Prepared for a database upgrade from Oracle 11.2.3 to 11.2.4, after completed spent time analyzing the database object and code to make sure all objects were upgraded as expected.
- Tested the BAS front end after upgrade to make sure production worked as expected.

*Work Planned (August 1st - August 31st)*

- Continue with the Disaster Recovery exercise preparations.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (July 1st - July 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
  - Per Dominic Nelson's request performed multiple copies of selected ACS measures from FY 2016 to FY 2017
  - Analysis of the issue with PERS data pull for OSWER with Targets not showing when the Results are not yet entered for FY
  - Analysis of the issue with PERS data pull for OSWER with Targets not showing when the Results are not yet entered for FY
  - Participated in the task of providing the list of routine changes we make annually to our reports/data/systems that we would not like to go through an extended CCB process requested by the client
  - Additions of new Regional Offices to Region 10 in ACS.
- BAS Miscellaneous Back End Support
  - Fixed the issue with PERS data pull for OSWER with Targets not showing when the Results are not yet entered for FY.
  - Participated in multiple copies of selected ACS measures from FY 2016 to FY 2017.

*Work Planned (August 1st - August 31st)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.

- Continue providing support to BAS/PERS/ACS users.
- Do some additional testing to see if BAS will run on an Oracle12c database.

### **Subtask 1.6 Acceptance Testing**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (July 1st - July 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

#### *Work Planned (August 1st - August 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (July 1st - July 31st)*

None

#### *Work Planned (August 1st - August 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (July 1st - July 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the



OCFO website.

- Continued maintaining BAS change control log.

*Work Planned (August 1st - August 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

**Subtask 1.9 - Database Security**

*Client Actions/Decisions Required*

None

*Work Performed (July 1st - July 31st)*

None

*Work Planned (August 1st - August 31st)*

- Maintain BAS database security as necessary.

**Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (July 1st - July 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.

- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

*Work Planned (August 1st - August 31st)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (July 1st - July 31st)*

- ACS Miscellaneous Support

- Added new RMO's for region.
- BAS ACS Miscellaneous Back End Support
  - ACS measures copy from 2016 to 2017.

*Work Planned (August 1st - August 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (July 1st - July 31st)*

- None

*Work Planned (August 1st - August 31st)*

- Continue efforts to develop and revise system documentation, if requested.

## **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (July 1st - July 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.

- Did June month-end load into 2016 ACT 9.0 in BAS.

*Work Planned (August 1st - August 31st)*

- Continue to support budget/finance related reports, as requested by client.

#### **Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (July 1st - July 31st)*

None

*Work Planned (August 1st - August 31st)*

- Support OCFO staff as requested.

#### **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (July 1st - July 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - Recertification Database – Kelly Seigel:
    - Answered some emails regarding setting up access for a new user.

*Work Planned (August 1st - August 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

### *Client Actions/Decisions Required*

None

### *Work Performed (July 1st - July 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

### *Work Planned (August 1st - August 31st)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (July 1st - July 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
  - Loaded Win10 on remaining 3 COOP laptops. Loaded Office 2016 and EPA software that is included with the standard EPA image. Unable to use EPA image because computers lack the encryption chip.
  - Update Janet's COOP machine with latest Windows Essentials which resolved an outstanding security vulnerability.
  - Install and configure BAS on Sarah VanFossen's laptop.
  - Jackye's CTS machine having problems with Outlook. EZ Tech wanted to reimage the machine. Deleted Outlook profile and configured server information. Problem resolved.
  - Assist Barbara Freggens with BAS problem/configuration.
  - Troubleshoot and resolve EnCase Servlet reporting problem for Mike Callewaert.
  - Assist Janet with troubleshooting embedded Excel in Word editing problem.
  - Assist Michele Wilburn with downloading Office 365 One Drive billing statement.
  - Install and configure BAS on Michele McKeever's laptop.

- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Stood up PK014 server with Windows 2008 R2 and SQL Server 2008 Enterprise. Obtained a static IP address for the server. Server was scanned for security vulnerabilities. Loaded all SQL packages (from SQL 2000) into SQL 2008 R2. Using temporary SQL software from KeyLogic. Purchase order for SQL license submitted for approval.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Attended IPv6, BigFix patching and MDT meetings.

*Work Planned (August 1st - August 31st)*

- Complete full testing of all SQL packages and jobs in SQL 2008 R2.
- Requested AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Test performance of BAS desktop client with Oracle database at Potomac Yard. PY was to set up a Hyper-V host for us, but no word on this yet. At this point I am in no rush to move the servers with the problems that we have experienced with our file server at PY.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Create plan for upgrading Citrix to newest version.

**Task 8: Web Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- Comments / Decision on Gates 3 and 4 memos

*Work Performed (July 1st - July 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other

- Agencies.
- Prepared training materials on various modules.
- Participated in BFS unit and integration tests.
- Reviewed for internal use requirements and processes for payroll projections and component resource administrators.
- Design and Review meetings:
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Team designed an approach for handling updates for any grid based on a Pivot-type query and used this approach for rendering Performance Data Entry Results Grid as well as multi-row updates.
  - Created a spreadsheet of DTS packages in BAS SQL Server that have to be used in BFS.
  - Added metatag entries to make Lab Costs grids appear on the front-end.
  - Created stored procs to enter grid metadata for shared SQL Builds.
  - Added two new columns Original PRCId, Original OrgId to modeling structures along with associated constraints.
  - Created a document for current Payroll Projections process.
  - Added two new columns Original PRCId, Original OrgId to Key Program structures and created associated constraints, defaults, foreign keys etc.
  - Entered catalog and grid metadata for Key Program structures.
  - Created functions to derive missing Org xwalk columns for BAS-to-BFS ETL.
  - Had discussions and meetings internally on SQL Server 2000 move to higher versions, Metadata document, Grid Metadata for shared builds and patterns, Performance Data, Database migration tasks.
  - Implemented structural changes for Lab Cost RDE.
  - Developed and tested database objects to select and update data in the Performance Module.
  - Coordinated and migrated database changes to Azure environment.
  - Provided database support for adding 'Applied Filter' to Modeling.
  - Learn about BFS metadata by attending knowledge transfer sessions and reviewing documentations.
  - Added metadata for two new columns (Original PRC and Original Org) to the fact tables.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Created non-core function to support combination fixed and virtual grid column metadata specific to Lab Cost.
  - Created non-core stored procedure to support data retrieval specific to lab cost grid.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata
  - Continued working on Performance Module – Results Data Entry, Performance Goal and Performance Indicators forms on the appropriate tabs of DE screen.

- Continued working on metadata management code referenced by the metadata management document.
- Continued on creation of metadata load processes and procedures
- Built out newly designed approach to handling non-core grids and system functions.
- Modified the shared grid column load procedures and functions to handle branching to non-core functions.
- Modified the shared grid SQL execute procedure to handle branching to non-core SQL execution procedures as needed.
- Built out procedural logic to handle multi-row updates for Pivot-fact type grids.
- Defined new grid and build types to support pivot-fact type grids and used these for the Performance Results data entry screen
- Developed grid connectivity metadata to link the Performance Indicator selector to the Pivot RDE grid for Performance Results.
- Developed the Performance Results specific grid column load function
- Developed the Performance Results specific grid sql execute stored procedure
- Created entries in the non-core object data to link the Performance Results specific procedures to the common core grid column and grid sql execute code.
- Continued working on the debugging of different modules accordingly to the Work Items in TFS.
- Continued creating metadata for allocations reports
- Continued working on the implementation of dynamic grids and multi row updates in Performance Data Entry screen.
- Implemented Modeling Applied Adjustment Filter storing and display.
- Participated in figuring out implementation of the Version Selector in the Doc Prep module.
- Worked on fixing after merge of different branches issues in Ref Data and Modeling modules.
- Fixed the issue with scroll bars disappearance on SaveAsNew Scenario and SaveAsNew base cost functions in Modeling.

*Work Planned (August 1st - August 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Manage database change scripts for deployment to Azure.
- Support in the development of the LabCost RDE.
- Continue to add the required metadata for the new columns (Original PRC and Original Org) to the fact tables.
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation.



- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Continue working on Program Area Module/Reports design and implementation.
- Continue working on Lab Costs module design and implementation
- Have more discussions on Phase 2 items for Performance Module, multi-fact grid type implementation and changes to grid metadata architecture to allow for multiple keys instead of a single primary key in a selector grid.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Shake out of Lab Costs modules.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on Database support for ProgramArea screens/reports.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Add concatenation to SQL Build logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.

## PROJECT DELIVERABLES

For the reporting period July 1<sup>st</sup> thru July 31<sup>st</sup> 2016

<b>Deliverable</b>	<b>Date</b>
June 2016 project status and cost reports (EPA-CFO_June_2016_Status.doc, EPA OCFO BAS cost report June 2016.xlsx)	7/8/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report August 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**September 15, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (September 1st - September 30th)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- Continue with the Disaster Recovery exercise preparations.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (August 1st - August 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
  - Clients support on determining what represents ORG field in BAS reports.
  - Analysis of the problem with saving Reprogramming Numbers with hyphens or underscore within Import processes from the spreadsheets and Compass loads.
  - Participated in BAS Runbook additions for the Standard Reprogramming Reports.
- BAS Miscellaneous Back End Support
  - Clients support in figuring out which versions have any resources against ORG 3200P.

*Work Planned (September 1st - September 30th)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.
- Do some additional testing to see if BAS will run on an Oracle12c database.

**Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

*Work Planned (September 1st - September 30th)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

None

*Work Planned (September 1st - September 30th)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (September 1st - September 30th)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:

- Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
- Meet to identify and discuss any outstanding DR issues and resolve them.
- Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

### **Subtask 1.9 - Database Security**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

None

#### *Work Planned (September 1st - September 30th)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

#### *Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

#### *Work Performed (August 1st - August 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

#### *Work Planned (September 1st - September 30th)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for

- required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
  - Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.



### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- Continue efforts to develop and revise system documentation, if requested.

### **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did July month-end load into 2016 ACT 10.0 in BAS.
- Created the FY 2017 SOY/EOY Activities document.
- Created 2017 data types logic document.
- Created 2017 nightly import DTS package.
- Worked on documentation of tasks for BAS Run book.
- Investigated special characters in FY Start and Approp.
- Coordination for migration and testing of DTS packages from SQL Server 2000 to SQL Server 2008.

*Work Planned (September 1st - September 30th)*

- Continue to support budget/finance related reports, as requested by client.

## **Task 4: Data Warehousing Support**

### *Client Actions/Decisions Required*

None

### *Work Performed (August 1st - August 31st)*

None

### *Work Planned (September 1st - September 30th)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

### *Client Actions/Decisions Required*

- None

### *Work Performed (August 1st - August 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - Open Commitment Databases – Richard Blackman
    - Looked into and corrected a problem related to the running of the Open Commitment nightly jobs. Jobs were not running because of server's Agent Log file being removed.
    - Enabled mid-day run of data load job as requested.
  - Recertification Database – Richard Blackman
    - Looked into and corrected a problem related to the running of the Recertification database nightly jobs. Jobs were not running because of server's Agent Log file being removed.

### *Work Planned (September 1st - September 30th)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

### *Client Actions/Decisions Required*

None

### *Work Performed (August 1st - August 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

### *Work Planned (September 1st - September 30th)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (August 1st - August 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
  - General Citrix logon problems for the following users: Kristie Moore, Steven Moore, Greg Scott, Lavone Martinez, James Ujcic, Beth Greenwald, Terry Woods, Peggy Schwebke.
  - Install and configure BAS on Sharon Vazquez and Laura Drummond's laptops.
  - Assist Sally Huang with VPN access issues.
  - Removed Negussie Nega and Aaron Staniszewski from BAS permission groups.
  - Troubleshoot Adobe Connect problem on Janet's machine.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Biggest problem last month was Citrix login problems. Users reported inability to log into Citrix, everything from Symantec window pop ups, multiple prompting for PIV card, general sluggishness, to browser freezing. In speaking with another Citrix admin from region 10, we both concluded that it appeared something likely changed with

group policy to the end clients which affected some but not all users. The only solution that I could identify was to disable the smartcard requirement. After disability PIV use, all problems went away.

- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Complete AAA access request for the Oracle DR server in Las Vegas.
- Group link helpdesk portal is up and running.

#### *Work Planned (September 1st - September 30th)*

- Assist Sanjivita with full testing of all SQL packages and jobs in SQL 2008 R2.
- Requested AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Test performance of BAS desktop client with Oracle database at Potomac Yard. PY was to set up a Hyper-V host for us, but no word on this yet. Have not heard back from PY OEI on this. At this point I am in no rush to move the servers with the problems that we have experienced with our file server at PY.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Create plan for upgrading Citrix to newest version.
- Configure Group Link portal integration with LDAP. Work with Jackye to ensure dropdown lists are accurate.

### **Task 8: Web Enabling our Current Client-Server Application (Optional)**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (August 1st - August 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
  - Reviewed for internal use requirements and processes for payroll projections and component resource administrators.

- Design and Review meetings:
  - Continued participating in numerous meetings for different modules, will continue discussion on these modules and finalize requirements.
  - Continued on working out level-of-effort for adding new columns to existing Resource structures and supporting new columns in all grids and reports.
  - Several meetings on Performance Targets/Actuals Data screen re-designs
  - Redesign of Lab Cost selector to implement compound container key
  - Meeting on using a template-based approach to implement “Pivot” style grids
  - Investigated missing PRCs and missing Org xwalk issue for 2015 ACT month-end loads.
  - Created functions for Org xwalk columns derivation logic.
  - Created metadata for Key Programs UDT.
  - Created a stored proc for adding missing PRCs.
  - Added missing ref data such as RPIO Activity and Program Area – Program Project xwalk and created scripts for the same.
  - Entered catalog and grid metadata for different types of Key Program grids.
  - Had discussions and meetings internally on SQL Server 2000 move to higher versions, Steps to enter Metadata to different types of grids, Grid Metadata for shared builds and patterns.
  - Implemented structural changes for Lab Cost RDE.
  - Migrated Lab Costs live data to various environments for testing.
  - Developed and tested database objects to select and update data in the Performance Module.
  - Coordinated and migrated database changes to Azure environment
  - Attended internal meetings with the database team to discuss metadata maintenance.
  - Continue to update the metadata for two new columns (Original PRC and Original Org) to the fact tables.
  - Worked with AAA National Support to troubleshoot issues with connectivity to the EPA servers.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Completed LabCost specific grid and report implementation.
  - Began design on generic approach to such grids.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on Performance Module – Results Data Entry, Performance Goal and Performance Indicators forms on the appropriate tabs of DE screen.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Continued creating metadata for allocations reports.

- Continued working on the implementation of dynamic grids and multi-row updates in Performance Data Entry screen.
- Added metadata tags to support compound container keys for Lab Costs.
- Modified logic to support compound container keys in selector grids.
- Modified logic to allow grid connectivity between selector grids returning compound keys rather than a primary key.
- Found and pointed out the issue with Data Entry for Performance Goals/Strategic Objective with no Performance Indicators yet assigned. This resulted in the different approach of the design and implementation of the Results Data Entry screen in Performance.
- Tested and reported Lab Costs RefData module issues.
- Modified Generic Data Entry Grid to use Pixel Display Length for columns width.
- Discovered Callback Route Values issue with dropdowns used in multiple grids. The fix for it was applied in all branches of the application.

*Work Planned (September 1st - September 30th)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to work on system testing and implementation.
- Manage database change scripts for deployment to Azure.
- Support in the development of the LabCost RDE.
- Continue to add the required metadata for the new columns (Original PRC and Original Org) to the fact tables.
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work on the design, implementation and data flow of the Reporting module.
- Continue working on Performance Module design and implementation.
- Continue working on Program Area Module/Reports design and implementation.
- Build out generic “Pivot” grid implementation and test.
- Have more discussions on Target Negotiation and Results DataEntry screens for Performance Module.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Shake out of Lab Costs modules.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on Database support for Program Area screens/reports.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.

- Add concatenation to SQL Build logic.
- Continued work on identifying metadata patterns and implementing processes to automate metadata management.
- Continue working on standardizing screen appearance in different modules.
- Complete build out of generic pivot grid implementation.

## PROJECT DELIVERABLES

For the reporting period August 1<sup>st</sup> thru August 31<sup>st</sup> 2016

Deliverable	Date
CJ Macro w/Future Year Range Updated Exhibit 53 SQL Exhibit 53 Outputs (Cj_macro.zip) (2016-08-03 Exh53 data dump.sql) (2016-08-03 Exh53.xlsx)	8/3/2016
July 2016 project status and cost reports (EPA-CFO_July_2016_Status.doc, EPA OCFO BAS cost report July 2016.xlsx)	8/11/2016



# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report September 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**October 11, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (September 1st - September 30th)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- Continue with the Disaster Recovery exercise preparations.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (August 1st - August 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
  - Support on data copy for Compass RPIO Activity requested by the client.
  - Support for the macros developer – diagnosed the problem and added FY 2018 versions linking or PERS.
  - Supported the client in moving users from one group to another using drag-and-drop functionality.
  - Responded to multiple requests from the client to add Regional Managing Offices for several Regions in ACS.
  - Participated in the investigation of what might be affected with a change to an RPIO Title.
- BAS Miscellaneous Back End Support
  - Responded to a request to investigate what might be affected with a change to an RPIO Title. Investigated things that could be affected and sent the info back to the client.
  - Copied Compass NPM Rpio Activity Link data forward from 2016 to 2017.

*Work Planned (September 1st - September 30th)*

- Continue enhancing BAS, as requested.
- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

### **Subtask 1.6 Acceptance Testing**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

#### *Work Planned (September 1st - September 30th)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

None

#### *Work Planned (September 1st - September 30th)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (August 1st - August 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.
- Continued maintaining BAS change control log.

*Work Planned (September 1st - September 30th)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

**Subtask 1.9 - Database Security**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

None

*Work Planned (September 1st - September 30th)*

- Maintain BAS database security as necessary.

**Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (August 1st - August 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.
- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

*Work Planned (September 1st - September 30th)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

**Task 2: Performance Module System Design, Development and Maintenance**

**Subtask 2.1 System Specification Review**

No activity during the reporting period.

**Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

**Subtask 2.3 System Development**

No activity during the reporting period.

**Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

**Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- None

**Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

**Subtask 2.7 Training**

No activity during the reporting period.

**Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- None

*Work Planned (September 1st - September 30th)*

- Continue efforts to develop and revise system documentation, if requested.

**Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5 and Nightly imports.
- Did August month-end load into 2016 ACT 11.0 in BAS.
- Updated the FY 2017 SOY/EOY Activities document.
- Coordinated for migration and testing of DTS packages from SQL Server 2000 to SQL Server 2008.
- Added new BOC code to RefBOC2 table.

- Updated 2017 nightly import processes with new FTE divisor and Adjustment Factor.

*Work Planned (September 1st - September 30th)*

- Continue to support budget/finance related reports, as requested by client.

#### **Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (August 1st - August 31st)*

None

*Work Planned (September 1st - September 30th)*

- Support OCFO staff as requested.

#### **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (August 1st - August 31st)*

- NONE

*Work Planned (September 1st - September 30th)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.



## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

### *Client Actions/Decisions Required*

None

### *Work Performed (August 1st - August 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

### *Work Planned (September 1st - September 30th)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (August 1st - August 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
  - Work with Greg Scott to troubleshoot his Citrix connectivity problems while using VPN.
  - Install and configure BAS on Jacob Simmons system.
  - Fix Tracy's Outlook problem.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Continued mitigation of Citrix problems. After disabling PIV requirement, not all problems went away. Some users still experienced problems with no access to the Citrix desktop or freezing on launch. Plan to upgrade the XenApp service pack from HRP 3 to HRP 9 to see if that will resolve the remaining problems.
- Worked with Sanjivita to conduct final testing of SQL 2008 R2. Testing is almost complete, but have stopped by a trial license issue where the server shuts down after 50 minutes. This prevents step 8 of the nightly job from completing. Requested Windows 2008 R2 license from Eric and he is working on provisioning the software.

- Still experienced problems with the BigFix TEM console the majority of September. The login and performance issues were finally resolved the last week of the month. This was a central BigFix server problem.
- Worked on LDAP integration for the up and running Group Link helpdesk. Received configuration settings from OAM. Met with the LDAP authentication group to get information on direct lookup. Must configure SSL on the Apache Tomcat site so it can integration with LDAP.
- Requested and received SSL certificate from CERTREQ for the GroupLink server.
- Updated DNS on servers per requirement from COTS Directory Services team.
- Started receiving login errors for Svc\_Counter Act on all of our servers. Eric and I reached out to OTOP, letting them know of the numerous failures. Still no fix as of the end of September.
- Take inventory of all printer ink in the storage closet. Identify if any items can be turned in because we no longer have the printers.
- Assist Tracy with printer surplus and techno trash items.
- Prepare COOP laptop for Kimberly Dubbs use for one week.
- Assist Phil Warren with disabling/bypassing the Citrix smart card login.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.

*Work Planned (September 1st - September 30th)*

- Secure and install license for Windows 2008 R2 (SQL 2008 box). Complete final testing with Sanjivita. Switch to the new server and decommission the SQL 2000 box.
- AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Test performance of BAS desktop client with Oracle database at Potomac Yard. PY was to set up a Hyper-V host for us, but no word on this yet. Have not heard back from PY OEI on this. At this point I am in no rush to move the servers with the problems that we have experienced with our file server at PY.
- Attend IPv6, BigFix patching, MDT and CDM meetings.
- Apply HRP rollup 9 for Citrix XenApp server.
- Configure SSL on GroupLink site and integrate with LDAP. Work with Jackye to ensure dropdown lists are accurate.

## **Task 8: Web Enabling our Current Client-Server Application (Optional)**

*Client Actions/Decisions Required*

- None

*Work Performed (August 1st - August 31st)*

- Continued planning and development activities for BFS application, including:

- Continued internal meetings to explore design options for the new system.
- Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
- Reviewed and prepared comments on DHS requirements for use in Fit-Gap sessions.
- Participated in several DHS Requirements Review sessions.
- Design and Review meetings:
  - Continued meetings on Performance Targets/Actuals Data screen re-designs to discuss any questions that came about during the re-design effort and to discuss Security in this module.
  - Completed first phase of design and development of a template-based approach to dynamic rendering of grid metadata
  - Completed first phase of a template based approach for dynamic building and execution of SQL for generic pivot grids
  - Began work on a template based approach for multi row updates in generic pivot grids
  - Completed first phase of a scripting language to interpret template commands
  - Design meetings to determine data structures to be passed from application to database to support generic pivot grid multi row updates.
  - Meetings on using a template-based approach to implement “Pivot” style grids
  - Discussions on automation of metadata data entry and various approaches to utilize existing procedures to make data entry easier and faster.
  - Started to investigate the level-of-effort for adding OrigORG and OrigPRC to existing Modeling Module and to see where it makes sense to add those
  - Meeting on the Security implementation in Target Negotiation and Results Data Entry screens of the Performance module.
  - Investigated missing PRCs and missing Org xwalk issue for 2015 ACT month-end loads.
  - Created functions for Org xwalk columns derivation logic.
  - Created a stored procedure for adding SQL Component metadata for Report Model.
  - Created a stored procedure for adding Report Model metadata.
  - Added missing ref data such as Fund, Approp, Subapprop, PRC, Org xwalk, Org, Allowance Holder, Detailed Costs and created scripts for the same.
  - Had discussions and meetings internally on SQL Server 2000 migration to 2008 version, Report Metadata, testing of Key Program grids through the front-end, Generic Grid architecture.
  - Implemented structural changes for LabCost RDE.
  - Migrated LabCosts live data to various environments for testing.

- Developed and tested database objects to select and update data in the Performance Module.
  - Coordinated and migrated database changes to Azure environment.
  - Attended internal meetings with the database team to discuss metadata maintenance.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Started work on a LabCost generic pivot style grid implementation.
  - Continue design and implementation for a generic approach to such grids.
  - Added metadata and picklist grid to assist with implementation of security in the LabCosts and Reporting module.
  - Create numerous metadata migration scripts for running updates to the LabCosts module in the various BFS databases.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata.
  - Continued working on the Target Negotiation screen in Performance Module.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures.
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Continued working on the implementation of multi row updates in Performance Target Negotiations screen.
  - Continued work and tested logic to support compound container keys in selector grids.
  - Continued work logic to allow grid connectivity between selector grids. returning compound keys rather than a primary key.
  - Fixed the issue with handling duplicates in GenericEdit.js
  - Implemented Export capability in all of the existing Performance grids.
  - Implementation of Locking and Unlocking data by FiscalYear/Owners on the Target Negotiation screen.
  - Implementation of the Comments popup in the Target Negotiation.

*Work Planned (September 1st - September 30th)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.
- Continue to participate in DHS sessions.
- Continue to support preparation of DHS Fit-Gap report.
- Continue to support requirements mgt. and test activities.
- Continue to work with architect on system testing and implementation.
- Manage database change scripts for deployment to Azure.

- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue working on Performance Module design and implementation..
- Build out generic “Pivot” grid implementation and test
- Have more discussions on Target Negotiation and Results Data Entry screens for Performance Module.
- Continue discussions on automation of metadata data entry
- Continue working on Performance Module design and implementation.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Continue development and shake out of the generic pivot grid using Lab Costs as the model.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on Database support for Program Area screens/reports.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Continue to make improvements to SQL Build and the SQL Execute logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management.
  - Continue working on standardizing screen appearance in different modules.
  - Complete build out of generic pivot grid implementation.
  - Complete Target Negotiation screen development.
  - Work on Results Data Entry in Performance module.

## PROJECT DELIVERABLES

For the reporting period September 1<sup>st</sup> thru September 31<sup>st</sup> 2016

<b>Deliverable</b>	<b>Date</b>
Hill Technical (Hill Technical Monthly Macro.xlsm)	9/6/2016
August 2016 project status and cost reports (EPA-CFO_August_2016_Status.doc, EPA OCFO BAS cost report August_2016.xlsx)	9/15/2016
CPIC IT Data (2016-09-23 Exhibit 53.xlsx)	9/23/2016
Updated CPIC IT Data (2016-09-26 Exhibit 53.pdf)	9/26/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report October 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**November 14, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (October 1st - October 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- BAS-Compass interface process.
- Actuals import process (CDW to BAS).
- Maintaining/troubleshooting Citrix virtual application solution for BAS.
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (November 1st - November 30th)*

KeyLogic will continue to analyze BAS issues, including:

- BAS-Compass interface process.
- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to the client for outside access to the Oracle DR server.



*Work Performed (October 1st - October 31st)*

- Updated the BAS data flow diagram for the System Characterization Document to add a data flow to FeedMom that was missing and remove a data flow that was incorrectly placed in the diagram.

*Work Planned (November 1st - November 30th)*

- Continue with the Disaster Recovery exercise preparations.
- Get access to the DR server.
- Do some additional testing on importing data using the Data Pump backup file.
- Schedule a Monthly Status meeting.

**Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

*Work Performed (October 1st - October 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
  - Support on Program Area Data Copy to Compass.
  - Support on Program Area Data Copy from one Fiscal Year to another within Compass.
  - Modified BAS contact info under Help menu item per client's request, tested and delivered.
  - Responded to multiple requests from the client to copy ACS Measures from one Fiscal Year to another.
  - Changed the NPM of PERS Measure PM "998" in FY 2016 from "OEI" to "OCSPP".
  - Support on the Transformation process with the complex filtering.
- BAS Miscellaneous Back End Support
  - Responded to multiple requests from the client to copy ACS Measures from one Fiscal Year to another.
  - Changed the NPM of PERS Measure PM "998" in FY 2016 from "OEI" to "OCSPP".
  - Support on the Transformation process with the complex filtering.
  - BAS Macro load – linking support

*Work Planned (November 1st - November 30th)*

- Continue enhancing BAS, as requested.

- Continue supporting BAS-Compass interface activities.
- Continue testing the EPA Test server Oracle upgrade.
- Continue providing support to BAS/PERS/ACS users.

### **Subtask 1.6 Acceptance Testing**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (October 1st - October 31st)*

- KeyLogic continued testing BAS features as system functionality was enhanced or developed.

#### *Work Planned (November 1st - November 30th)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (October 1st - October 31st)*

None

#### *Work Planned (November 1st - November 30th)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (October 1st - October 31st)*

- Continued supporting BAS on-line help functionality and content.
- Continued updating the BAS user guides as necessary to reflect system functionality

modifications. Continued supporting conversion of the BAS User Guides and the PERS/ACS User Guides and various help documents into a PDF format for use on the OCFO website.

- Continued maintaining BAS change control log.

*Work Planned (November 1st - November 30th)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.
- Develop “BAS Bytes” documents, if requested, describing new BAS features or functionality.
- Continue analyzing and improving/documenting the EPA/BAS Disaster Recovery (DR) process, as time and priorities permit:
  - Work to finalize the process to eliminate the need for sending DVDs to KeyLogic, making the backups available to KeyLogic by way of access to the SAN, so that BAS database refreshes can be transferred electronically when needed.
  - Meet to identify and discuss any outstanding DR issues and resolve them.
  - Once all issues are resolved, and processes finalized, make changes to the SCD and DR Plan reflect the process resolutions.

**Subtask 1.9 - Database Security**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

None

*Work Planned (November 1st - November 30th)*

- Maintain BAS database security as necessary.

**Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (October 1st - October 31st)*

- Continued working on BAS-Compass interface issues.
- Continued to monitor the nightly Actuals import process, notifying client of import status and correcting problems when necessary.

- Continued analyzing/modifying the nightly FY 2015 Actuals import process logic as requested.
- Continued supporting tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).

*Work Planned (November 1st - November 30th)*

- Continue working with client staff to resolve any identified issues with the nightly automated CDW-BAS FY 2015 Actuals import process, including issues with source data quality, data query modifications, and translation/transformation logic.
- Continue to load and test the latest ETL code in the EPA production environment as necessary to support modifications to the nightly CDW data import.
- Continue supporting annual/quarterly tasks to prepare budget and financial data for required reporting (e.g. Statement of Net Costs, PAR, SF133, etc.).
- Continue to push to get F5 access to BAS Test server – changing the production server to point to FEEDMOM test leaves us open for errors and also makes “real” uploads impossible during testing.
- Continue supporting BAS-Compass interface activities.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (October 1st - October 31st)*

- None

*Work Planned (November 1st - November 30th)*

- None

**Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

**Subtask 2.7 Training**

No activity during the reporting period.

**Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

- None

*Work Planned (November 1st - November 30th)*

- Continue efforts to develop and revise system documentation, if requested.

**Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Did 12<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup> month-end loads for FY 2016 into 2016 ACT 12.0, 13.0 and 14.0 in BAS.
- Updated the FY 2017 SOY/EOY Activities document.

- Completed the load of Base Costs for 2016 pay periods 25-26 and Sept PHS.
- Processed and loaded PPG Obligs into BAS.
- Resolved Cost and Revenue totals issue; then ran ESP Allocations for Cost and Revenue data for 2016 month 14.
- Processed and loaded 133 Obligations into 2016 ACT 16.5.
- Updated 2017 nightly import processes with new FTE divisor and Adjustment Factor.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5, Nightly imports.

*Work Planned (November 1st - November 30th)*

- Continue to support budget/finance related reports, as requested by client.

#### **Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

None

*Work Planned (November 1st - November 30th)*

- Support OCFO staff as requested.

#### **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (October 1st - October 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - CATD Database – Lorna Washington
    - Lorna requested the notes link to the database. Sent it to her.
    - Lorna requested help with a person's access to the database. Unfortunately, this was not something I could assist with and referred her to the helpdesk.
  - GAO Request Tracking Database – Mark T Howard

- Helped Mark by creating a Database Synopsis for him so that the development team converting the database from Lotus Notes would have some more info about the content.
- Open Commitment Databases – Richard Blackman
  - Looked into and corrected a problem related to the running of the Open Commitment nightly jobs. Jobs were not running because of server's Agent Log file being removed.
  - Enabled mid-day run of data load job as requested.
- Recertification Database – Richard Blackman
  - Created the 2017 Recertification Database and setup for data to load.
  - Issue was discovered that caused data not to load. Nothing changed on the application side. Problem was found to be in the source database where the Treasury Symbol field was truncated to the last 4 digits.
  - Made changes to database query to pull data with only last 4 digits of TS code. Updated database profile settings to also use only the last 4 digits.

*Work Planned (November 1st - November 30th)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.
  - Support of conversion to Lotus Notes replacement as needed.

**Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (November 1st - November 30th)*

- Install BAS front and back end as necessary to implement system revisions.

**Task 7: Project Management/Technical Assistance**

*Client Actions/Decisions Required*

None

*Work Performed (October 1st - October 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance.
- Citrix problems have appeared to quiet down after upgrading XenApp server to the latest service pack HRP rollup 9.
- BigFix TEM console problems resolved. Also now have access to BigFix file storage area and have successfully started crafting/authoring BigFix fixlets.
- SSL and LDAP integration fully configured for GroupLink helpdesk portal. Received request for AAA team to switch the port from 9090 to 8090.
- Started receiving login errors for Svc\_CounterAct on all of our servers. Eric and I reached out to OTOP, letting them know of the numerous failures. Still no fix as of the end of September.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans. The firmware update of the StorCenter NAS storage device/SAN did not correct the problem. Mike Callewaert asking for exemption.

*Work Planned (November 1st - November 30th)*

- Secure and install license for Windows 2008 R2 (SQL 2008 box). Order was processed. Work with Eric to get license key on VLC site. Complete final testing with Sanjivita. Switch to the new server and decommission the SQL 2000 box.
- AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- OEI is requesting that we move our servers out of room 6033. JR contacted me and said we can move to WJC East building. I asked if we can retain the same subnet and waiting for an answer back from JR. If subnet is the same, we can move the servers by the end of the month with no degradation of service.
- Attend IPv6, BigFix patching, MDT and CDM meetings. Attend monthly AD admins meeting.
- Work with Eric and Jackye to ensure dropdown lists are accurate in the GroupLink helpdesk portal.



## **Task 8: Web Enabling our Current Client-Server Application (Optional)**

### *Client Actions/Decisions Required*

- None

### *Work Performed (October 1st - October 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
- Reviewed and prepared comments on DHS requirements for use in Fit-Gap sessions.
- Participated in several DHS Requirements Review sessions.
- Design and Review meetings:
  - Continued meetings on Performance Targets/Actuals Data screen re-designs to discuss any questions that came about during the re-design effort and to discuss Security in this module.
  - Final design meetings on data structures and metadata to be used in application to database communication for generic pivot grids..
  - Meetings on performance security
  - Discussions on automation of metadata data entry and various approaches to utilize existing procedures to make data entry easier and faster.
  - Continued to investigate the level-of-effort for adding OrigORG and OrigPRC to existing Modeling Module and to see where it makes sense to add those
  - Continued discussions on the Security implementation in Target Negotiation and Results Data Entry screens of the Performance module.
  - Continued meetings on the proposals of the possible designs of Results Data Entry screen
  - Demo and meetings of the Target Negotiation screen to the client.
  - Discussions on the implementation of the checkboxes for locking records in Target Negotiations.
  - Discussions and document preparation for Target Negotiation Business rules.
  - Discussions and time estimate for switching back to the old BAS Account Code structure in BFS.
  - Discussions on adding Exceptions to Version Status on Version Management screen.
  - Had discussions and meetings internally on Modeling ETL, functions to derive

- Org constituents, Base Costs.
- Provide database support to the development of the Target Negotiation screen in the Performance Module
- Attended weekly meetings to discuss the status and questions about the Performance Module.
- Attended internal design sessions on the development of a generic pivot grid.
- Productionalized the ETL process for importing Base Cost data into BFS from BAS.
- Imported new Base Cost data into BFS.
- Coordinated and migrated database changes to Azure environment.
- Attended internal meetings with the database team to discuss metadata maintenance.
- Data Capture:
  - Continued building out database objects needed to support Performance module processes.
  - Continued work on a LabCost generic pivot style grid prototype.
  - Continued implementation for a generic approach to such grids.
  - Create numerous metadata migration scripts for running updates to the LabCost module in the various BFS databases.
  - Supported the effort for converting an additional set of modeling data from current BAS to BFS.
- System development and support:
  - Continued to work on processes for more rapid QA and correction of metadata
  - Continued working on the Target Negotiation screen in Performance Module.
  - Continued working on metadata management code referenced by the metadata management document.
  - Continued on creation of metadata load processes and procedures
  - Continued working on the debugging of different modules accordingly to the Work Items in TFS.
  - Continued working on the implementation of multi row updates in Performance Target Negotiations screen.
  - Continued work and tested logic to support compound container keys in selector grids
  - Continued work logic to allow grid connectivity between selector grids returning compound keys rather than a primary key.
  - Implemented check boxes including selecting All on Target Negotiation screens.
  - Created a document with Business Rules for Target Negotiation.
  - Continued working on implementing cells security in TN NPM grid.
  - Participating in testing of the latest data conversion in Modeling.

*Work Planned (November 1st - November 30th)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Continue to prepare SLCM documentation.

- Continue to participate in DHS sessions.
- Continue to support preparation of DHS Fit-Gap report.
- Continue to support requirements mgt. and test activities.
- Manage database change scripts for deployment to Azure.
- Continue to design and build database objects for the Performance Module
- Continue work on the design, implementation and data flow of the Change Tracking process.
- Continue to work with architect on testing and implementation
- Continue working on Performance Module multiple screens design and implementation.
- Complete Lab Cost prototype for the generic pivot grid
- Capture new metadata rules/patterns to support the generic pivot grids
- Build out and test a multi-version pivot grid. This should be a metadata only effort.
- Begin design and coding of templates and procedures to build and modify metadata for pivot grids
- Have more discussions on Results Data Entry screens for Performance Module.
- Continue discussions on automation of metadata data entry.
- Continue discussions on Security aspects for Performance module screens.
- Data Capture:
  - Continued working on filling in gaps in metadata and processes.
  - Continued to QA database Performance data loads.
- System development and support:
  - Continue development and shake out of the generic pivot grid using Lab Costs as the model.
  - Build out and test metadata for a multi-version resource screen using the generic pivot grid code.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on the items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Continue to make improvements to SQL Build and the SQL Execute Logic.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management
  - Continue working on standardizing screen appearance in different modules.
  - Complete build out of generic pivot grid implementation.
  - Complete Target Negotiation screen development including Security.
  - Continue working on design and development Results Data Entry in Performance Module.

## PROJECT DELIVERABLES

For the reporting period October 1<sup>st</sup> thru October 31<sup>st</sup> 2016

Deliverable	Date
Front-end containing modifications to BAS contact info (basbuild_10062016_basmain.zip)	10/6/2016
September 2016 project status and cost reports (EPA-CFO_Septembert_2016_Status.doc, EPA OCFO BAS cost report September_2016.xlsx)	10/11/2016
Hill Quarterly (Quarterly Hill 10_14_2016.xlsx) (Quarterly Hill Macro.xlsm) (quarterly_hill.sql)	10/17/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report November 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
3168 Collins Ferry Road  
Morgantown, WV 26505

***Date Submitted:***

**December 15, 2016**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (November 1st - November 30th)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- Actuals import process (CDW to BAS).
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (December 1st - December 31st)*

KeyLogic will continue to analyze BAS issues, including:

- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

No activity during the reporting period.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

- Submitted request to client for outside access to the Oracle DR server.

#### *Work Performed (November 1st - November 30th)*

- Tested the outside connection to the Oracle DR server and connection failed Sent the error to the client and network manager.

*Work Planned (December 1st - December 31st)*

- Continue with the Disaster Recovery exercise preparations.
- Get access to the DR server.
- Schedule a DR planning meeting.
- Do another connection test on getting access to the DR server from outside of EPA. Need verification from EPA that the server can be accessed from within EPA and is up and running to proceed with a DR exercise.

### **Subtask 1.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.
- Need information on what allocation data can be archived.

*Work Performed (November 1st - November 30th)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support
  - Additions of the new Regional Managing Offices for the Region 7 per client's request.
  - Assisted the client to figure out the issue with allocating the data in the version 6.0 2016 OPP 16.5 and actually perform the Allocation process.
  - Performed the reassignment of Performance Measure '998' to a different NPM – found the issue with the previously copied data and fixed it.
  - Performed the special copy of the OPP version into ACT version per client's request.
- BAS Miscellaneous Back End Support
  - Responded to a request for assistance to speed up the allocation reporting.

*Work Planned (December 1st - December 31st)*

- Continue enhancing BAS, as requested.
- Archive historic data to enable the reporting process to run faster – allocation tables have become too large to run reports in a timely fashion.

### **Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

None

*Work Planned (December 1st - December 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

**Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

None

*Work Planned (December 1st - December 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

**Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

None

*Work Planned (December 1st - December 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.

**Subtask 1.9 - Database Security**



*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

None

*Work Planned (December 1st - December 31st)*

- Maintain BAS database security as necessary.

**Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (November 1st - November 30th)*

- Continued to monitor the nightly Actuals import process and correcting problems when necessary.

*Work Planned (December 1st - December 31st)*

- Continue supporting client as needed.

**Task 2: Performance Module System Design, Development and Maintenance**

**Subtask 2.1 System Specification Review**

No activity during the reporting period.

**Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

**Subtask 2.3 System Development**

No activity during the reporting period.

**Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (November 1st - November 30th)*

- None

*Work Planned (December 1st - December 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

- None

*Work Planned (December 1st - December 31st)*

- Continue efforts to develop and revise system documentation, if requested.

## **Task 3: Financial and Other Reporting Requirement Support**

*Client Actions/Decisions Required*

- Decision from the client if this task is still needed since requests for loading data have not been received for a very long time.

*Work Performed (November 1st - November 30th)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Did October month-end loads for FY 2017 into 2017 ACT 1.0 in BAS.
- Analyzed and loaded 133 Obligations data into BAS.
- Completed the load of C type FTE into 2016 ACT 14.1.
- Investigated and reconciled Obligation FTE data for 2016 month 14.
- Tested 2017 nightly import on new BAS SQL Server.
- Updated 2017 nightly import processes with new FTE divisor 2088
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5, Nightly imports.

*Work Planned (December 1st - December 31st)*

- Continue to support budget/finance related reports, as requested by client.

**Task 4: Data Warehousing Support**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

None

*Work Planned (December 1st - December 31st)*

- Support OCFO staff as requested.

**Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- None

*Work Performed (November 1st - November 30th)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - General
    - Updated BAS\_USER password in multiple databases which use it to connect to CDW.
    - Had to work with the helpdesk to get my token and LAN user account reactivated.
  - CATD Database – Lorna Washington/Nicholas Grzegozewski
    - Nicholas requested that the system be modified to only send to specific people when a CA is nearing its due date or overdue. Made changes to code, and added section where people to be notified could be maintained. Also gives the admins the ability to use the specified groups if desired.
    - Lorna requested that a date of completion be reset on one record. Reset as requested.
  - Recertification Database – Richard Blackman/Joseph Layman
    - Issue discovered when requesting funds that was related to the Treasury Symbol length change from prior month. Updated code to reflect the change and pushed out changes.

*Work Planned (December 1st - December 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.
  - Support of conversion to Lotus Notes replacement as needed.

**Task 6: Hardware/Software/Peripheral Purchases/Installation**

*Client Actions/Decisions Required*

None

*Work Performed (November 1st - November 30th)*

- Installed BAS front-end files and ran database scripts on EPA's servers as necessary to implement system modifications.

*Work Planned (December 1st - December 31st)*

- Install BAS front and back end as necessary to implement system revisions.

**Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (November 1st - November 30th)*

- End user support and software updates pushed via BigFix management agents. Attended security patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end user desktop support.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance. Installed/configured ArcSight-InfraView on our remaining servers. It will soon be an Agency requirement that all server must be visible in InfraView.
- Expanded drive volumes on several servers. All volumes must have a minimum 15% free space.
- Worked with Jonathan Davis on the COTS team to improve Acrobat Reader and Java updates in BigFix. The OB shop is at a record low count on critical overdue Windows patches thanks to this effort.
- James Freeman alerted us that we can move our servers to a data center in WJC East building.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Secured and configured Windows 2008 R2 license for the new SQL 2008 server. Still waiting on the SQL 2008R2 database license.

### *Work Planned (December 1st - December 31st)*

- Complete data validation testing of new SQL 2008R2 server. Switch to the new server and decommission the SQL 2000 box.
- AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.
- Work with JR to identify a move date for our servers to the WJC East building.
- Attend IPv6, BigFix patching, MDT and CDM meetings. Attend monthly AD admins meeting.
- Work with Eric and Jackye to ensure dropdown lists are accurate in the GroupLink helpdesk portal.

- Work with InfraView team to configure additional SNMP monitors for our servers such as ensuring the SQL Server agent is running, Oracle database service is running, or Citrix service is running.

### **Task 8: Web Enabling our Current Client-Server Application (Optional)**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (November 1st - November 30th)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
- Reviewed and prepared comments on DHS requirements for use in Fit-Gap sessions.
- Drafted DHS Fit-Gap report.
- Participated in several DHS Requirements Review sessions.
- Design and Review meetings:
  - Continued meetings on Performance Targets/Actuals Data screen re-designs to discuss any questions that came about during the re-design effort and to discuss Security in this module.
  - Meetings on performance security.
  - Continued discussions on the addition of the NoTarget field in Target Negotiation and Results Data Entry screens of the Performance module.
  - Continued discussions and formulating questions on the designs of Results Data Entry screen.
  - Populated Ref Doc Prep Element Types and did knowledge transfer of hierarchical elements in BFS.
  - Provided database support to the development of grids and forms in the Performance Module.
  - Attended weekly client meetings to discuss the status and questions about the Performance Module.
  - Provided database and metadata support for Doc Prep.
  - Developed Entity Relationship Diagrams for the tables in the Performance Module.

- Deployed new security features and new Base Cost data to Azure environment.
- Troubleshoot query performance issues in development SQL Server.
- Data Capture:
  - Started to work on documenting the newly implemented dynamic pivot grids using various patterns created as templates.
  - Created testing users with the explanation for the client on how to use them with Business Rules for Target Negotiation.
  - Completed first working version of internal scripting rules to construct SQL from metadata.
- System development and support:
  - Continued fixing issues found during testing of the Target Negotiation screen in Performance Module.
  - Continued work on allowing selector grids to provide compound keys to data entry grids in Performance Data Entry screen. (Multiple consumer/provider relationships between grids supported with this.)
  - Continued working on the debugging of different modules accordingly to the Work items in TFS.
  - Finished development of Performance Target Negotiations screen and released it to the client for testing.
  - Working to provide the client with testing User Account accordingly to the business and security rules for the Target Negotiation screen in Performance.
  - Completed and tested all templates based on scripting rules in order to implement fully functioning/generic multiple-pivot-column pivot grids.
  - Designed and loaded new pivot grid specific metadata structures to support pivot grid sql scripting.
  - Completed shell stored procedures for grid rendering, dataset creation, and multirow data updates for generic pivot grids using the scripted templates and metadata.
  - Created Tree Grids to support the DocPrep Module.
  - Created RefData Entry grids to support the DocPrep Module.
  - Assisted in shakeout of Tree and Ref Data Entry grids to support DocPrep.
  - Worked on the removal of the references to the Data classes in the ModelingController.
  - Found issues with the Copy User function in the Administration, provided the details to the appropriate developer.
  - Supported the DocPrep RefData module developer to have this piece incorporated into BFS RefData schema.
  - Working on the ResultsDataEntry screen design and development.
  - Continued building out database objects needed to support Performance module processes.
  - Completed LabCost prototype of a generic pivot style grid.

*Work Planned (December 1st - December 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Continue to support efforts related to BFS deployment outside EPA.
- Complete preparation of DHS Fit-Gap report.
- Continue to support requirements mgt. and test activities.
- Manage database change scripts for deployment to Azure.
- Continue to design and build database objects for the Performance Module
- Continue discussions on all aspects of Performance Results Data Entry screen including Mater/Detail implementation, Security and others as needed.
- Data Capture:
  - Determine which of Annual Measures or Commitments have precedence when both name same measure.
  - Determine rules for generating PFS performance bidding and contributors from Annual Measures which have neither.
  - Other meetings on data mapping as discovery continues.
- System development and support:
  - Support effort to migrate BAS Performance data into BFS Performance system structures.
  - Support BFS Performance application and report development.
  - Enter metadata needed to support several new RefData Entry grids needed to support the DocPrep Module.
  - Deferred until after BFS Performance system is accepted or until directed by EPA to proceed: Build out and test metadata for a multi-version resource screen using the generic pivot grid code.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Continue to make improvements to SQL Build and the SQL Execute logic as time allows.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management as time allows
  - Continue working on standardizing screen appearance in different modules.
  - Complete Target Negotiation screen debugging.
  - Continue working on design and development Results Data Entry in Performance module.
  - Continued to QA database Performance data loads.
  - Ongoing refactoring of scripting rules and processes which support scripting rules as time permits.
  - Ongoing migration of dynamic sql generation in stored procedures to use scripting-rules based approach as time permits.



## PROJECT DELIVERABLES

For the reporting period November 1<sup>st</sup> thru November 30<sup>th</sup> 2016

<b>Deliverable</b>	<b>Date</b>
October 2016 project status and cost reports (EPA-CFO_October_2016_Status.doc, EPA OCFO BAS cost report October_2016.xlsx)	11/14/2016

# **BUDGET SYSTEMS SUPPORT FOR EPA OCFO**

## ***Project Report December 2016***

**CUSTOMER: U.S. Environmental Protection Agency -  
Office of the Chief Financial Officer**

Contract No. GS-35F-0151L

Task Order No. EPG12H00434

***Submitted By:***



KeyLogic Systems, Inc.  
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***Date Submitted:***

**January 17, 2017**

## **Task 1: Budget Automation System Design, Development, and Maintenance**

### **Subtask 1.1 System Specifications**

No activity during the reporting period.

### **Subtask 1.2 Prepare System Development Life Cycle Development Analyses**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (December 1st - December 31st)*

KeyLogic continued analyzing requirements/problems for BAS, as requested, including;

- Actuals import process (CDW to BAS).
- Miscellaneous system enhancement requests (see Subtask 1.5).

#### *Work Planned (January 1st - January 31st)*

KeyLogic will continue to analyze BAS issues, including:

- Supporting Citrix virtual application solution for BAS.
- BAS system performance issues.
- Issues reported by OCFO staff and other BAS users.
- Updates and improvements to the automated data transfer between the CDW/Momentum and BAS, as necessary or requested.
- Other BAS modifications and enhancements, as requested.

### **Subtask 1.3 System Development**

- Troubleshoot Month end load.
- Investigated data issues with Resource K.

### **Subtask 1.4 System Security and Disaster Recovery**

#### *Client Actions/Decisions Required*

None

### *Work Performed (December 1st - December 31st)*

- Restored a version of data for a user by identifying and downloading a backup file and restoring the Resources table to the BAS\_Restore user when data from that table turned up missing, informed the client the data was restored for their review.
- Network manager verified that the DR server was up and Oracle was running. Re-Tested the outside connection to the Oracle DR server. Did not get connected. Sent the info to the client and network manager.

### *Work Planned (January 1st - January 31st)*

- Continue with the Disaster Recovery exercise preparations.
- Continue to work on getting connection to the DR server from outside of the EPA so we can proceed with a DR exercise. Once connection is verified, a planning meeting can be scheduled.

## **Subtask 1.5 Enhancing System Functionality**

### *Client Actions/Decisions Required*

- Decision on whether any further work will be done on PERS or ACS in the existing Oracle based BAS system.

### *Work Performed (December 1st - December 31st)*

KeyLogic responded to EPA requests for BAS enhancements, including:

- BAS Miscellaneous Front End Support.
  - Users support in resetting passwords.
  - Figured out the issue with the Baseline EB screen not showing the data for 2018 - data was not copied forward.
  - Users support with the opening and closing data entry for Bidding in FY 2015 so some outstanding bids could be resolved.
  - Ran multiple screens/reports in BAS with logging so DataBase developers can use this in Performance Data Conversion into BFS.
  - Created and incorporated into BAS Standard reports module, tested and delivered new standard report for 2016 C/O into 2017 Reprogramming.
  - BAS Reserves Importing issues for Resources and Reprogrammings – the explanation about the derivation of RPIO and cost estimate to have it fixed was sent to the client. Waiting for decision if we are actually changing the code to allow Reserves import by non Superuser.
  - Diagnosed the issue with missing dlls in Production and Citrix, pointed it to the client.

- Assisted users with figuring out the maximum length of the certain fields in PERS.
- BAS Miscellaneous Back End Support
  - Talked with the client on what could be done with the large amount of allocation data in the current tables and recommended either creating an archive table to hold historic data in the BAS\_Hist user or to partition the table. This change needs to be done before the next allocation exercise that will be done sometime in February or March.

*Work Planned (January 1st - January 31st)*

- Continue enhancing BAS, as requested.
- Continue to explore options on changing the allocation tables that have become too large to run reports against in a timely fashion. Historic data should be archived or the existing table needs to be partitioned so the reporting process can run in a more timely fashion.

### **Subtask 1.6 Acceptance Testing**

*Client Actions/Decisions Required*

None

*Work Performed (December 1st - December 31st)*

None

*Work Planned (January 1st - January 31st)*

- KeyLogic will continue testing BAS until all identified errors have been resolved and as new system functionality is implemented.

### **Subtask 1.7 Training**

*Client Actions/Decisions Required*

None

*Work Performed (December 1st - December 31st)*

None

*Work Planned (January 1st - January 31st)*

- KeyLogic will work with client staff to develop training documents in support of BAS training, as requested. We will provide on-site support of BAS training sessions at the request of client staff.

### **Subtask 1.8 Documentation**

*Client Actions/Decisions Required*

None

*Work Performed (December 1st - December 31st)*

None

*Work Planned (January 1st - January 31st)*

- KeyLogic will work with client staff to develop documentation in support of BAS, as requested.

### **Subtask 1.9 - Database Security**

*Client Actions/Decisions Required*

None

*Work Performed (December 1st - December 31st)*

None

*Work Planned (January 1st - January 31st)*

- Maintain BAS database security as necessary.

### **Subtask 1.10 - BAS System Integration with Other Administrative Systems**

*Client Actions/Decisions Required*

- Response to change request to allow partial reprograms to be loaded to Compass.

*Work Performed (December 1st - December 31st)*

- Continued to monitor the nightly Actuals import process and correcting problems when necessary.

*Work Planned (January 1st - January 31st)*

- Continue supporting client as needed.

## **Task 2: Performance Module System Design, Development and Maintenance**

### **Subtask 2.1 System Specification Review**

No activity during the reporting period.

### **Subtask 2.2 Prepare System Development Life Cycle Development Analyses**

No activity during the reporting period.

### **Subtask 2.3 System Development**

No activity during the reporting period.

### **Subtask 2.4 System Security and Disaster Recovery**

No activity during the reporting period.

### **Subtask 2.5 Enhancing System Functionality**

*Client Actions/Decisions Required*

- None

*Work Performed (December 1st - December 31st)*

- None

*Work Planned (January 1st - January 31st)*

- None

### **Subtask 2.6 Acceptance Testing**

No activity during the reporting report.

### **Subtask 2.7 Training**

No activity during the reporting period.

### **Subtask 2.8 Documentation**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (December 1st - December 31st)*

- None

#### *Work Planned (January 1st - January 31st)*

- Continue efforts to develop and revise system documentation, if requested.

### **Task 3: Financial and Other Reporting Requirement Support**

#### *Client Actions/Decisions Required*

- Decision from the client if this task is still needed since requests for loading data have not been received for a very long time.

#### *Work Performed (December 1st - December 31st)*

- Continued supporting year-end, annual/quarterly budget/finance reporting processes and data quality issues including – Hill Monthly reports.
- Continued working on maintenance and infrastructure tasks such as password changes, connectivity on CDW, BAS SQL Server, F5, Nightly imports.

#### *Work Planned (January 1st - January 31st)*

- Continue to support budget/finance related reports, as requested by client.

### **Task 4: Data Warehousing Support**

#### *Client Actions/Decisions Required*

None

#### *Work Performed (December 1st - December 31st)*



None

*Work Planned (January 1st - January 31st)*

- Support OCFO staff as requested.

## **Task 5: Administrative Database Application Development and Maintenance**

*Client Actions/Decisions Required*

- Need to have the BAS\_USER account's access to CDW tables reinstated so that the nightly jobs will start functioning again. Jackye Herzfeld has been working this.

*Work Performed (December 1st - December 31st)*

- Continued to provide Lotus Notes expertise in support of multiple database applications, including:
  - CATD Database – Lorna Washington/Nicholas Grzegozewski
    - Nicholas requested help with granting access to another user and a URL link to the lotus notes database. Provided both.
  - GAO Request Tracking – Bob Trent/Mark T Howard
    - Bob notified me of some data that appeared to have been deleted from the GAO request tracking database. I contacted Prakash Punj, admin for the DCAOESO1 server, and requested a backup copy be restored. Prakash made the restore and I copied the records from the restored database to the current copy of the GAO database. Bob confirmed these were the deleted records.
  - Recertification Database – Richard Blackman/Joseph Layman
    - Issue discovered that was causing the nightly job to fail. After a number of days of working the issue, it was finally discovered that the user BAS\_USER had some of its table access privileges removed in the CDW system. Certain tables in the Recert DB Query, as well as the Open Commitments query were no longer accessible. The query for new data fails and the database is not updated. Asked Jackye to contact the Oracle/CDW admins and get the access to these tables reinstated. We are still waiting for a response.

*Work Planned (January 1st - January 31st)*

- Continue to provide Lotus Notes expertise in support of budget-related applications, as requested, including, but not limited to:
  - Support of existing databases.
  - Support of conversion to Lotus Notes replacement as needed.

## **Task 6: Hardware/Software/Peripheral Purchases/Installation**

### *Client Actions/Decisions Required*

None

### *Work Performed (December 1st - December 31st)*

None

### *Work Planned (January 1st - January 31st)*

- Install BAS front and back end as necessary to implement system revisions.

## **Task 7: Project Management/Technical Assistance**

### *Client Actions/Decisions Required*

None

### *Work Performed (December 1st - December 31st)*

- End user support and software updates pushed via BigFix management agents. Attended security-patching calls with server admins to discuss EPA wide BigFix patching of servers.
- Provided end-user desktop support:
  - New print server was set up. All users currently mapped to printers via the legacy print server will need to be remapped. Instructions were sent out to users on how to remap the printers.
  - Set up new employee Lauren Johnson with BAS desktop shortcut, Citrix and SnagIt. Found that she was missing the O: drive mapping on startup. Created EZTech service ticket for her.
  - Assist Khanh with standing desk. See if can tighten and adjust to reduce wobble and screen shake.
  - Assist Jackye with conference room setup on 12/6.
  - Troubleshoot why BAS network connection for Billy is so slow. Determined he was not using Citrix why working remotely.
  - Provide Eric with Citrix peak user/license usage over the past few years. Need to determine if we need a 100 seat license.
  - Coordinate with Dominic Nelson to configure additional users to run BAS

macros from their machines. Found that the Oracle driver being utilized was outdated and replaced. Updated VBA code in macro to use the newer supported Oracle connection driver. Everything works fine. Let Michelle know that need to update the driver in the macros.

- Assist Zach Church with SmartCard reader errors on his laptop.
- Ongoing management and maintenance of all physical servers and server VMs.
- Upload nightly BAS backups to OneDrive online storage. Ensure backups are uploaded on a nightly basis, even when offsite, and completed before 10 am each morning.
- Ensure all servers including DR servers are reporting to ArcSight/showing up in InfraView logging. We had to add 3 additional servers. Work with Trey Vestal to ensure reporting is correct.
- Backup verification and space management. NAS still has adequate space.
- Review InfraView reporting/logs for server errors and items that require maintenance. Installed/configured ArcSight-InfraView on our remaining servers. It will soon be an Agency requirement that all server must be visible in InfraView.
- Apply new BAS dll file to both Citrix and File Server environments.
- Work with Theresa to learn steps for restoring/importing Oracle backups into the Test and DR environments. Identified problem with large table 5 GB in size that should be cleared out before nightly backup is executed.
- Troubleshoot with Sanjivita why nightly backups were not running or were failing for a period of 1 week in November.
- Configure SMTP email notifications on OCFO Helpdesk portal.
- Work with Vijay to ensure all Oracle environments are upgraded from 11.2.0.3 to 11.2.0.4. This was caught by Nessus security scans as a vulnerability.
- James Freeman is now providing an alternate location in the East building to host our servers. This is a better option than Potomac yard since the servers will still be local in Fed Triangle, therefore performance should be maintained close to what we currently have.
- OB shop is at a record low count on critical overdue Windows patches thanks to this effort.
- Continued monitoring/investigation of real time failed server logins. This has allowed us to improve BAS customer support by proactively identifying users that are having difficulty accessing BAS via Citrix.
- Continued work with Shelly to remediate security risks identified by Nessus scans.
- Secured and configured Windows 2008 R2 license for the new SQL 2008 server. Still waiting on the SQL 2008R2 database license.

*Work Planned (January 1st - January 31st)*

- Work with Jackye to complete data validation testing of new SQL 2008R2 server. Switch to the new server and decommission the SQL 2000 box once we get the SQL license for production.
- AD accounts for Sanjivita, Vijay, Milind and Theresa. These accounts are required to correct a security hole. Still no action on this request.

- Work with JR to identify a move date for our servers to the WJC East building. Meeting scheduled for 1/13.
- Attend IPv6, BigFix patching, MDT and CDM meetings. Attend monthly AD admins meeting.
- Work with Jackye to ensure dropdown lists are accurate in the Grouplink helpdesk portal. Meeting scheduled 1/10 to collect requirements for helpdesk forms.
- Work with InfraView team to configure additional SNMP monitors for our servers such as ensuring the SQL Server agent is running, Oracle database service is running, or Citrix service is running.

### **Task 8: Web Enabling our Current Client-Server Application (Optional)**

#### *Client Actions/Decisions Required*

- None

#### *Work Performed (December 1st - December 31st)*

- Continued planning and development activities for BFS application, including:
  - Continued internal meetings to explore design options for the new system.
  - Continued maintaining and modifying the development framework in the KeyLogic environment.
- Conducted numerous meetings and discussions about DB structure, requirements, and user interface functionality.
- Continued to review the BFS DR plan.
- Continued developing EPA SLCM documents required to pass Control Gates 3 and 4:
  - Prepared background material for EPA use in BFS deployments to other Agencies.
  - Prepared training materials on various modules.
  - Participated in BFS unit and integration tests.
- Completed DHS Fit-Gap report.
- Responded to EPA questions regarding DHS report.
- Design and Review meetings:
  - Continued meetings on Performance Targets/Results Data screen designs.
  - Discussions on Performance security
  - Continued discussions on the addition of the No Target field in Results Data Entry screens of the Performance module.
  - Multiple discussions with the client and formulating questions on the designs of Results Data Entry screen.
  - Target Negotiation screen testing continues.
  - Provided database support to the development of grids and forms in the Performance Module.
  - Created ETL packages to extract Performance data from ACS and PERS and load into staging area in BFS
  - Attended weekly client meetings to discuss Performance Module Sprint status

- Provided database and metadata support for Doc Prep
- Deployed new security features and new Base Cost data to BFS Production environment
- Performed backup and restore of development databases for unit testing.
- Data Capture:
  - Started to work on documenting the newly implemented dynamic pivot grids using various patterns created as templates.
  - Created testing users with the explanation for the client on how to use them with Business Rules for Target Negotiation.
  - Completed first working version of internal scripting rules to construct SQL from metadata.
- System development and support:
  - Continued to add catalog and grid metadata for additional RefData Entry grids to support the DocPrep Module.
  - Created pick list grids needed based on Doc Prep ref tables that are needed for the various data entry screens.
  - Continued in shakeout of Tree and Ref Data Entry grids to support DocPrep.
  - Created tables in Oracle that will be used to combine Commitment and Pers data into one set of data that will be used in Performance data conversion into BFS.
  - Created multiple testing users for the client to test Target Negotiation grids.
  - Implementation of the Performance Indicator grid within Results Data Entry screen.
  - Implementation of the Contributor and Sub Contributor Results Data Entry grids.
  - Addition of the Status Drop Down field in the Performance Goal grid in the Results Data Entry screen.
  - Master/Detail grids scrolling and sizing for the Results Data Entry screen.
  - Provided support to other developers on the team to have incorporated their code into RefData module.
  - Provided information to the management regarding how Pmeasure/Program Project linking is done in BAS.
  - Incorporated "NoTarget" check box into Contributor and Sub Contributor grids.
  - Created multiple questions and suggestions for clarifying Statuses tracking on the Results Data Entry Screen.
  - Sent out the items needed for implementing Security in the Results Data Entry screen for each grid level.

*Work Planned (January 1st - January 31st)*

- Continue planning/development activities and maintain project schedule.
- Continue working on features for BFS as per the requirements.
- Document metadata templates and load rules for generic pivot grids
- Continue and finish discussions and implementation of the Results Data Entry screen.
- Update existing selenium test scripts for various BFS modules.
- Continue to support efforts related to BFS deployment outside EPA.

- Continue to support BFS at DHS work.
- Continue to support requirements mgt. and test activities.
- Manage database change scripts for deployment to Azure.
- Continue to design and build database objects for the Performance Module
- Re-engineer mapping spreadsheets and mapping tables as EPA provides mappings. Most of the mapping is now going to be rules-based rather than crosswalk based.
- Create views in BAS for pulling Annual Measure (PERS) and Commitment (ACS) data into BFS staging area
- Build out first draft of procedures to create PFS data based on staging data pulled from BAS, from crosswalks (assuming these are delivered), and from EPA rules.
- Data Capture:
  - Worked with EPA Performance team to develop an approach to mapping BAS performance measures to PFS
  - Created queries for EPA for them to assign objectives to PERS and ACS measures that do not have them
  - Created queries for EPA to show them which ACS measures can be linked, one-to-one, to which PERS measures and how that linkage is accomplished (there are three different ways this can be done; the query shows which of the three are used; all three or any two or just one of the linkages can be in place for any one measure).
  - Met and exchanged emails and produced mapping suggestions for EPA to illustrate the problem areas
  - Got several important, concrete answers from EPA on how the various ACS and PERS measures will be treated, particularly in regard to the anomalous measures.
- System development and support:
  - Continue to enter metadata needed to support several new RefData Entry grids needed to support the DocPrep Module and support shakeout efforts as needed
  - Developed spreadsheet mappings and mapping tables to support migration of BAS performance data.
  - Continue development of all the aspects of the Results Data Entry screen including Security, Milestones and Performance Goals updates.
  - Complete Target Negotiation screen debugging.
  - Support PFS application and Report development.
  - Deferred until after PFS is accepted or until directed by EPA to proceed: Build out and test metadata for a multi-version resource screen using the generic pivot grid code.
  - Continue working on various Database support needed for Performance Module.
  - Continue working on the Items on the UAT results list.
  - Continue working on Performance Module UI and back end.
  - Continue to make improvements to SQL Build and the SQL Execute logic as time allows.
  - Continued work on identifying metadata patterns and implementing processes to automate metadata management as time allows.
  - Continue working on standardizing screen appearance in different modules.
  - Continued to QA database Performance data loads.

- Ongoing refactoring of scripting rules and processes which support scripting rules as time permits.
- Ongoing migration of dynamic sql generation in stored procedures to use scripting-rules based approach as time permits.

### PROJECT DELIVERABLES

For the reporting period December 1<sup>st</sup> thru December 31<sup>st</sup> 2016

<b>Deliverable</b>	<b>Date</b>
Front-end files containing modifications to CO Congressional report (basbuild_12092016_basrpts.zip)	12/09/2016
November 2016 project status and cost reports (EPA-CFO_November_2016_Status.doc, EPA OCFO BAS cost report November_2016.xlsx)	12/15/2016